

Subject Index

Abatement and removal

Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646

Bioremediation of Hazardous Wastes — A Review, 1946

Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721

Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232

Evaluation of a Sludge Yield and Phosphorus Removal in a Cannibal Solids Reduction Process, 735

Heavy Metals Removal from Acidic and Saline Soil Leachate using Either Electrochemical Coagulation or Chemical Precipitation, 660

Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959

Microbial Adaptability to Organic Loading Changes in an Enhanced Biological Phosphorus Removal Process, 701

Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705

Removal of Immiscible Contaminants from Sandy Soils Monitored by Means of Dielectric Measurements, 704

Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621

Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687

Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630

Simultaneous Removal of Cd and Cr(VI) using Fe-Loaded Zeolite, 632

Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722

Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717

Sulfur Impregnation on Activated Carbon Fibers through H₂S Oxidation for Vapor Phase Mercury Removal, 615

Vermiculite Filtration for Removal of Oil from Water, 1957

Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097

Abrasives

Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Absorption

Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723

Dynamic Anomalies in a Modular Bridge Expansion Joint, 157

Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429

Performance of Overburnt Distorted Bricks as Aggregates in Pavement Works, 1352

Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307

Abutments

Countermeasure Toe Protection at Spill-Through Abutments, 956

Scour Countermeasures for Wing-Wall Abutments, 988

Acceleration

Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834

Accident prevention

Owner's Role in Construction Safety, 304

Owner's Role in Construction Safety: Guidance Model, 305

Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351

Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668

Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716

Accidents

Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320

Case for Drug Testing of Construction Workers, 1242

Comparative Injury and Fatality Risk Analysis of Building Trades, 342

Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262

Organizational Distortions and Failures: A Method to Expose Them, 1408

Owner's Role in Construction Safety, 304

Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393

Accounting

Interactions between Business and Financial Strategies of Large Engineering and Construction Firms, 1254

Accreditation

Engineering Experience and Competitions Implement ABET Criteria, 1419

Accuracy

Accurate Representation of External Force in Time History Analysis, 438

Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742

Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443

Acid rain

Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Acids

Citric Acid Enhanced Remediation of Soils Contaminated with Uranium by Soil Flushing and Soil Washing, 609

Impact of Inherent Factors on the Radiolytic Degradation of Biorefractory Contaminants, 755

Acoustic detection

Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296

Structural Monitoring and Integrity Assessment of Medieval Towers, 1605

Acoustic measurement

Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Acoustics

Dynamic Anomalies in a Modular Bridge Expansion Joint, 137

Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145

Overture to Omaha, 2024

Activated carbon

Adsorption and Desorption of Volatile Organic Compounds in Fluidized Bed, 648

Control of PAHs from Incineration by Activated Carbon Fibers, 650

Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616

Evaluation of Water Reuse Technologies for the Textile Industry, 618

Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688

Removal of Toluene Vapor with Dispersed Activated Carbon, 622

Sulfur Impregnation on Activated Carbon Fibers through H₂S Oxidation for Vapor Phase Mercury Removal, 615

Activated sludge

Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715

Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636

Density and Activity Characterization of Activated Sludge Flocs, 724

Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602

Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713

Evaluation of a Sludge Yield and Phosphorus Removal in a Cannibal Solids Reduction Process, 735

Simulating Activated Sludge System by Simple-to-Advanced Models, 587

Active control

General Approach for Training Back-Propagation Neural Networks in Vibration Control of Multidegree-of-Freedom Structures, 269

Modal Seismic Control of Building Frames by Artificial Neural Network, 252

Time-Delayed Positive Velocity Feedback Control Design for Active Control of Structures, 503

Adaptive systems

Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156

Adhesives

Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives, 1497

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461

Performance in Fire of Small-Scale CFRP Strengthened Concrete Beams, 239

Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335

Admixtures

Effect of Mixture Consistency on Formwork Pressure Exerted by Highly Flowable Concrete, 1353

Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279

Adsorption

Adsorption and Desorption of Volatile Organic Compounds in Fluidized Bed, 648

Applicability of Equilibrium Isotherm Models for the Biosorptive Uptakes in Comparison to Activated Carbon-Based Adsorption, 764

Comparison of Methods for Determining Specific Surface Area of Soils, 865

Control of PAHs from Incineration by Activated Carbon Fibers, 650

Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616

Measured and Predicted Herbicide Removal by Mulch, 702

Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688

Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679

Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Advection

Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774

Steady-State Diffusion — Advection by Exponential Finite Elements, 55

Aeration

Aerated Rotk Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646

SUBJECT INDEX

- Bottom Aeration of Stepped Spillways, 1014
- Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683
- Aerial photography**
- Improved AADT Estimation by Combining Information in Image- and Ground-Based Traffic Data, 1719
- Aerial surveys**
- Single Epoch Kinematic GPS Positioning Technique in Short Baseline, 1647
- Aerobic treatment**
- Formation of Aerobic Granules with Domestic Sewage, 677
- Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601
- Simulating Activated Sludge System by Simple-to-Advanced Models, 587
- Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597
- Aerodynamics**
- Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
- Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67
- Database-Assisted Design of Low-Rise Buildings: Aerodynamic Considerations for a Practical Interpolation Scheme, 1529
- History and Aesthetics of the Bronx-Whitestone Bridge, 127
- Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70
- Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551
- Aeroelasticity**
- Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
- Flutter Phenomenon in Aeroelasticity and its Mathematical Analysis, 58
- Full-Scale Measurements to Investigate Rain-Induced Cable-Stay Vibration and its Mitigation, 133
- Nonlinear Aeroelasticity: Continuum Theory, Flutter/Divergence Speed, and Plate Wing Model, 76
- Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551
- Aerospace engineering**
- Calibration of Strapdown Magnetometers in Magnetic Field Domain, 68
- Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79
- Africa**
- Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793
- Aggregates**
- Analysis of Flexible Pavement Response and Performance using Isotropic and Anisotropic Material Properties, 1698
- Application of Weibull Statistics to the Tensile Strength of Rock Aggregates, 850

Agriculture

- Automated Measurement of Railway Ballast Angularity, 1331
- Bitumen Surface Energy Characterization Using a Contact Angle Approach, 1350
- Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672
- Density and Activity Characterization of Activated Sludge Flocs, 724
- Design and Performance of Stone Mastic Asphalt, 1768
- Effect of Coarse Aggregate Morphology on Permanent Deformation Behavior of Hot Mix Asphalt, 1726
- Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221
- Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore-Clay Aggregates and Suspended Spores, 666
- Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1323
- Load Transfer in Rammed Aggregate Piers, 51
- Performance of Overburned Distorted Bricks as Aggregates in Pavement Works, 1352
- Strength of Lightweight Glass Aggregate Concrete, 1343
- Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319
- Aging**
- Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216
- Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325
- Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344
- Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324
- Modifying Merchants Bridge, 2022
- Past Perfect, 1996
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Agreements**
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Agricultural wastes**
- Economic Analysis of an Irrigation System for Liquid Manure Application, 1208
- Agriculture**
- Economically Driven Simulation of Regional Water Systems: Friant-Kern, California, 1849
- Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843
- Enhanced Runoff Curve Number Model Incorporating Storm Duration and a Nonlinear I_a -S Relation, 1136
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202

Soil Stabilization in Semiarid and Arid Land Agriculture, 1282

Air entrainment

Experimental Study of Flow in a Vortex Drop Shaft, 937

Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262

Air flow

Dynamics of Air Flow in Sewer Conduit Headspace, 1009

Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708

Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008

Nonlinear Aeroelasticity: Continuum Theory, Flutter/Divergence Speed, and Plate Wing Model, 76

Air pollution

Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444

Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67

Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616

Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708

Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138

Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628

Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753

Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Transportation Choices and Air Pollution Effects of Telework, 1149

Vapor Leak Detection for an Underground Storage Tank System, 703

Air quality

Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753

Air temperature

Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753

Air water interactions

Air/Water Oxygen Transfer in a Biological Aerated Filter, 603

Hydraulics of Plane Plunge Pool Scour, 976

Aircraft

Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70

Airfields

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Airport construction

Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257

Airport runways

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761

Defeating Delays, 2028

Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707

Investigation of Heaving at Holloman Air Force Base, New Mexico, 1370

Airport terminals

Automated Access, 2036

Airports

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Alabama

Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784

Alaska

Disinfection By-Product Formation during Long-Term Water Storage in Alaska, 188

Algorithms

Algorithm Fusion for Detecting Incidents on Singapore's Central Expressway, 1696

Alternative Decision Making in Water Distribution Network with NSGA-II, 1813

Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798

Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186

Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187

Calibration of Strapdown Magnetometers in Magnetic Field Domain, 68

Damage Identification Based on Dead Load Redistribution: Methodology, 1562

Developing Combined Genetic Algorithm—Hill-Climbing Optimization Method for Area Traffic Control, 1736

Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732

Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694

Evaluation of Speed-Based Travel Time Estimation Models, 1721

Free Transverse and Lateral Vibration of Beams with Torsional Coupling, 59

Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444

Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582

Identification of Groundwater Pollution Sources using GA-Based Linked Simulation Optimization Model, 1081

SUBJECT INDEX

- Identifying a Design Management Package to Support Concurrent Design in Building Wafer Fabrication Facilities, 348
- Improved Design for Vision-Based Incident Detection in Transportation Systems using Real-Time View Transformations, 1755
- Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66
- Multiobjective Plan Selection Optimization for Traffic Responsive Control, 1702
- Multiple Optimum Size/Shape/Topology Designs for Skeletal Structures using a Genetic Algorithm, 1552
- Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
- Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718
- Operational Response Model for Physically Attacked Water Networks using NSGA-II, 283
- Optimal Design of Redundant Water Distribution Networks using a Cluster of Workstations, 1840
- Optimal Design with Probabilistic Objective and Constraints, 445
- Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178
- Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667
- Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337
- Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217
- Prediction of Concrete Strength using Neural-Expert System, 1311
- Role of Learning Algorithm in Neural Network-Based Backcalculation of Flexible Pavements, 287
- Scheduling Construction Projects using Evolutionary Algorithm, 374
- Simulated Annealing — Genetic Algorithm for Transit Network Optimization, 251
- Structural Damage Detection via Modal Data with Genetic Algorithms, 1586
- Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102
- Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968
- Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917
- Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676
- Alignment**
- Addressing Security in Early Stages of Project Life Cycle, 1259
- Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708
- Model for Three-Dimensional Highway Alignment, 1764
- Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700
- Alkalinity**
- Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709

Anaerobic treatment

- Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610
- Allocations**
- Optimal Irrigation Planning under Water Scarcity, 1189
- Alluvial channels**
- Downstream Hydraulic Geometry of Alluvial Channels, 1067
- Scale Independent Linear Behavior of Alluvial Channel Flow, 1002
- Alluvial streams**
- Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993
- Alluvial valleys**
- Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- Aluminum**
- Experimental Investigation of Aluminum Alloy Thin-Walled Tubular Members in Combined Compression and Bending, 1632
- Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628
- Modeling the Sorption of Fluoride onto Alumina, 608
- Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944
- Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597
- Tests and Design of Aluminum Alloy Compression Members, 1546
- Ammonia**
- Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646
- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- Amplification**
- Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128
- Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129
- Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
- Anaerobic treatment**
- Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949
- Anaerobic Degradability: Effect of Particulate COD, 637
- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670
- Fate and Modeling of Pentachlorophenol Degradation in a Laboratory-Scale Anaerobic Sludge Digester, 689
- Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601
- Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722

Analytical techniques

- Analytical Solutions of Nonlinear Kinematic Wave Model, 1126
- Buckling of Simply Supported Rectangular Reissner — Mindlin Plates Subjected to Linearly Varying In-Plane Loading, 491
- Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
- Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494
- Explicit Expression for Beach Response to Non-Stationary Forcing near a Groynes, 1867
- Improved Analysis Method for Wave-Induced Pipeline Stability on Sandy Seabed, 1727
- Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864
- Scattering of Linear Water Waves by a Fixed and Infinitely Long Rectangular Structure Parallel to a Vertical Wall in Oblique Seas, 1865
- Seepage to a Drainage Ditch and Optimization of Its Shape, 1234
- Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485
- Undrained Bearing Capacity of Square and Rectangular Footings, 27
- Anchorage**
- Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 29
- Posttensioned Anchorage Zone Enhancement with Fiber-Reinforced Concrete, 159
- Anchors**
- Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 29
- Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Anemometers**
- Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
- Angle sections**
- Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458
- Animals**
- Economic Analysis of an Irrigation System for Liquid Manure Application, 1208
- Anisotropic materials**
- Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81
- Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinylster Binder, 1340
- Anisotropy**
- Analysis of Flexible Pavement Response and Performance using Isotropic and Anisotropic Material Properties, 1698
- Anisotropic Nonlinear Elastic Model for Particulate Materials, 874
- Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18
- Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317

- Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489
- Identification and Interpretation of Microplane Material Laws, 465
- Modeling of Pavement Response using Nonlinear Cross-Anisotropy Approach, 1711
- Multilaminar Macromodel for Concrete Masonry: Formulation and Verification, 1635
- Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510
- Principal Deviatoric Strain Increment Ratios for Sand having Inherent Transverse Isotropy, 47
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Approximation methods**
- Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
- Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132
- Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
- Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663
- Generalized Interstory Drift Spectrum, 1523
- Aprons**
- Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957
- Aquatic habitats**
- Phoenix Rises, 1999
- Aquatic plants**
- Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
- Aquifers**
- Analyses of Drought Flow in Recession Period, 1085
- Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100
- Biologically Mediated Reductive Transformation of Ordinance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948
- Character of Organic Matter in Soil-Aquifer Treatment Systems, 748
- Column Study Simulating In Situ Bioremediation of Perchlorate using Acetate as an Organic Substrate, 1950
- Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
- EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674
- Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations — Modeling Study, 589
- Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209
- Modeling the Sorption of Fluoride onto Alumina, 608

SUBJECT INDEX

Numerical Model of Saltwater Transport toward a Pumping Well, 1103
Simplified Kernel Method for Flow to Large Diameter Wells, 1173

Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers¹, 675

Arbitration

Logistic Likelihood Analysis of Mediation Outcomes, 389

Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436

Arches

Creep Buckling of Shallow Parabolic Concrete Arches, 1601

Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494

Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105

Architect/engineers

Design Errors: Inefficiency or Carelessness of Designer?, 1383

Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341

Architecture

Building Integration Solutions, 7653

Computer Representation to Support Conceptual Structural Design within a Building Architectural Context, 253

Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910

A Healing Place, 1998

Argentina

Resistivity Survey of the Subsurface Conditions in the Estuary of the Rio de la Plata, 784

Arid lands

Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083

Evaluation of Dust Palliatives for Unpaved Roads in Arid Climates, 1394

Soil Stabilization in Semiarid and Arid Land Agriculture, 1282

Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers¹, 675

Arizona

EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674

Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911

Phoenix Rises, 1999

Remarkable Rotation, 1994

Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180

Value of Instream Recreation in the Sonoran Desert, 1806

Aromatic hydrocarbons

Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613

Emission of Polycyclic Aromatic Hydrocarbons on the Combustion of Liquid Crystal Display Components, 716

Asphalt concrete

Arsenic

Arsenic Removal from Water by Moving Bed Active Filtration, 583

Factors Influencing Arsenite Removal by Zero-Valent Iron, 749

Iron Oxide Coated Sand for Arsenic Removal: Investigation of Coating Parameters using Factorial Design Approach, 1962

Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653

Artificial intelligence

Application of Support Vector Machine in Lake Water Level Prediction, 1091

Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411

Experimental Verification of Smart Cable Damping, 462

Multi-Agent Framework for General-Purpose Situational Simulations in the Construction Management Domain, 261

Prediction of Concrete Strength using Neural-Expert System, 1311

Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272

Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765

Artificial islands

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

ASCE Publications

Peak Wind Load Comparison: Theoretical Estimates and ASCE 7, 1551

Transactions of the American Society of Civil Engineers 2005, 2094

Ashes

Effects of Silica Fume and Rice Husk Ash on the Properties of Heavyweight Concrete, 1301

Potential of Wood Waste Ash as an Additive in Concrete, 1330

Asia

Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88

Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling — Mekong River Basin, 1850

Asphalt cement

Commercial Odor-Reducing Agents for Minimizing the Odor Potential of Asphalt Binders, 645

Asphalt concrete

Design and Performance of Stone Mastic Asphalt, 1768

Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322

Impact of Specimen Geometry on Dynamic Modulus Measurement Test Setup, 1314

Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316

Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275

Properties of Asphalt Concrete Layer Interfaces, 1312

Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497

Asphalt concrete

- Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563
Thermomechanical Framework for the Constitutive Modeling of Asphalt Concrete, 15

Asphalt mixes

- Assessing Permanent Deformation Resistance of High Modulus Asphalt Mixtures, 1704
Design and Performance of Stone Mastic Asphalt, 1768
Development of Mix Design Procedure for Cold In-Place Recycling with Foamed Asphalt, 1274
Effect of Coarse Aggregate Morphology on Permanent Deformation Behavior of Hot Mix Asphalt, 1726
Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770
Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322
Finite-Element Analysis of Hot Mix Asphalt Microstructure using Effective Local Material Properties and Strain Gradient Elasticity, 451
Reclaimed Asphalt Pavement Detection and Quantity Determination, 1988
Viscoelastic Modeling and Field Validation of Flexible Pavements, 452

Asphalt pavements

- Accuracy of Ground-Penetrating Radar for Pavement-Layer Thickness Analysis, 1673
Application of Graded Finite Elements for Asphalt Pavements, 459
Asphalt Mix Design and Construction: Past, Present, and Future, 2050
Assessing Permanent Deformation Resistance of High Modulus Asphalt Mixtures, 1704
Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388
Development of Mix Design Procedure for Cold In-Place Recycling with Foamed Asphalt, 1274
Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322
Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334
Fatigue and Healing of Asphalt Mixtures: Discriminate Analysis of Fatigue Curves, 1680
Properties of Asphalt Concrete Layer Interfaces, 1312
Reclaimed Asphalt Pavement Detection and Quantity Determination, 1988
Repeated Measurement Data Analysis in Pavement Deterioration Modeling, 1153
Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141
Use of an Infrared Joint Heater to Improve Longitudinal Joint Performance in Hot Mix Asphalt Pavements, 1380
Use of Superpave Gyrotory Compaction Data for Rutting Prediction, 1744
UTW Behavior on Asphalt Pavements Tested with HWLS, 1760

Asphalts

- Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324
Material-Related Aspects of Asphalt Recycling — State-of-the-Art, 1270
Rheological Characterization of Asphalt Emulsions Residues, 1304

2006 ASCE TRANSACTIONS

Assessments

- Addressing Security in Early Stages of Project Life Cycle, 1259
Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177
Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656
Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433
Condition Assessment of Water Distribution Pipes, 1151
Engineering Experience and Competitions Implement ABET Criteria, 1419
Methodology for Ranking the Elements of Water-Supply Networks, 1160
Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531
Organizational Distortions and Failures: A Method to Expose Them, 1408
Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174
Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361
Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162

Assets

- Markov-Based Optimization Model for Building Facilities Management, 407

Asymmetry

- Asymmetric Flow in Symmetric Supercritical Expansions, 953
Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541

Attenuation

- Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672
Remediation of a TCE Plume using a Three-Component Strategy, 1952

Atterberg limits

- Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881

Australia

- Alliancing in Australia — No-Litigation Contracts: A Tautology?, 1414
Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787
Discriminating Modes of Shoreline Response to Offshore-Detached Structures, 1873
Dynamic Anomalies in a Modular Bridge Expansion Joint, 157

Automatic identification systems

- Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882

Automation

- Automated Access, 2036

SUBJECT INDEX

- Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258
- Automated People Mover Standards — Part I (ASCE 21-05), 2051
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
- Construction Business Automation System, 296
- Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256
- Model for Automated Monitoring of Fall Hazards in Building Construction, 360
- Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409
- Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180
- Axial compression**
- Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296
- Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
- Axial loads**
- Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814
- Design of Circular Base Plates, 1970
- Drag Force on Single Piles in Clay Subjected to Surge Loading, 20
- Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548
- Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478
- Interaction Diagram and Load Effects for Vertical Pile Groups with Application to the AASHTO LRFD, 1484
- Modeling of Prestressed Concrete-Filled Circular Composite Tubes Subjected to Bending and Axial Loads, 1483
- Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476
- Axisymmetry**
- Dynamic Uplift Scenarios for Floating Ice, 182
- Plane Strain and Axially Symmetric Consolidation in Unsaturated Soils, 24
- Azimuth**
- Evaluation of a GPS-Based Approach for Rapid and Precise Determination of Geodetic/Astronomical Azimuth, 1661
- Backfills**
- Active Thrust Due to Backfill Subject to Lines of Surcharge, 805
- Development and Production of Ready-Mixed Soil Material, 1354
- Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892

Barriers

- Slug Test Analysis in Vertical Cutoff Walls. I: Analysis Methods, 817
- Slug Test Analysis in Vertical Cutoff Walls. II: Applications, 818
- Bacteria**
- Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646
- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623
- Baffles**
- Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614
- Ballast**
- Automated Measurement of Railway Ballast Angularity, 1331
- Bank erosion**
- Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- Sediment Transport Model for Seepage Erosion of Stream Bank Sediment, 1133
- Bank stabilization**
- Sediment Transport Model for Seepage Erosion of Stream Bank Sediment, 1133
- Barges**
- Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150
- Barriers**
- Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43
- Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44
- Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293
- EOF Analysis of Complex Response of Venice Mobile Gates, 1872
- Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
- Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481
- High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690
- Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709
- Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892
- Methodology to Develop Median Barrier Warrant Criteria, 1691
- Model Study of the Influence of Submerged Tidal Barriers on Estuarine Mixing and Exchange Processes, 1034
- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. I: Field Study of Tracer Movement, 1966
- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967

Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289

Security Barrier Design, 1981

Bars

Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227

Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216

Residual Tensile Properties of GFRP Reinforcing Bars after Loading in Severe Environments, 226

Tensile Lap Splicing of Bundled CFRP Reinforcing Bars in Concrete, 217

Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363

Base course

Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56

Limit-State Curve of Base-Course Material and Its Reliance for Resilient Modulus Testing, 795

Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993

Rational Approach for Base Type Selection, 1746

Structural Performance Monitoring of an Unstabilized Fly Ash-Based Road Subbase, 1769

Base isolation

Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548

Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440

Bathymetry

Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858

GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816

Bayesian analysis

Bayesian Network for E/M Impedance-Based Damage Identification, 267

Bayesian State Estimation Method for Nonlinear Systems and its Application to Recorded Seismic Response, 474

Bayesian Updating Application into Simulation, in the North Edmonton Sanitary Trunk Tunnel Project, 376

Estimation of Pavement Performance Deterioration using Bayesian Approach, 1144

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Improved Image Analysis for Evaluating Concrete Damage, 265

New Measure for Severity of Near-Source Seismic Ground Motion, 1636

Beach erosion

Discriminating Modes of Shoreline Response to Offshore-Detached Structures, 1873

Beaches

Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896

Tracer Studies in Laboratory Beach Simulating Tidal Influences, 668

Beam columns

Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458

Experimental Investigation of Aluminum Alloy Thin-Walled Tubular Members in Combined Compression and Bending, 1632

Minor Axis Moment-Thrust Response Behavior in Steel I-Shaped Members, 1544

Nonlinear Analysis of Reinforced Concrete Beam — Columns with Bond-Slip, 559

Plastic Hinge Integration Methods for Force-Based Beam — Column Elements, 1462

Beams

Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463

Buckling of Multiwalled Carbon Nanotubes using Timoshenko Beam Theory, 534

Characterization of Unistrut Connection Method with Pultruded Fiber-Reinforced Polymer Channels, 1342

Construction of Customized Mass-Stiffness Pairs using Templates, 80

Damage Assessment in Beams using Inverse Method, 469

Damage Identification Based on Dead Load Redistribution: Methodology, 1562

Damping in Shear Beam Structures and Estimation of Drift Response, 522

Dynamic Stability of Ferromagnetic Beam-Plates with Magnetoelastic Interaction and Magnetic Damping in Transverse Magnetic Fields, 476

Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473

Flexural Behavior of Hybrid FRP-Concrete-Steel Double-Skin Tubular Members, 233

Fracture Analysis of Shear Deformable Bi-Material Interface, 466

Free Transverse and Lateral Vibration of Beams with Torsional Coupling, 59

Functionally Graded Stitched Laminates: Illustration on the Example of a Double Cantilever Beam, 78

Generalized Interstory Drift Spectrum, 1523

Grace under Pressure, 2013

Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236

Mechanical Grading of Round Timber Beams, 1261

Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470

Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471

Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171

Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461

On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554

On the Free Vibrations of Variable-Arc-Length Beams: Analytical and Experimental, 1517

Postbuckling of Beam Subjected to Intermediate Lower Force, 436

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516

Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474

SUBJECT INDEX

- Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72
- Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507
- Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573
- Splicing of Precast Concrete-Filled FRP Tubes, 224
- Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213
- Bearing capacity**
- Bearing Capacity of Piles Rafts on Soft Clay Soils, 927
- Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916
- Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Building, 87
- Behavior of Reinforced Concrete Column—Steel Beam Roof Level T-Connections under Displacement Reversals, 1540
- Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982
- Collapse during Construction of a Precast Girder Bridge, 1375
- Concentrically Loaded Circular Steel Plates Bearing on Plain Concrete, 1614
- Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8
- Experimental Behavior of Stiffened and Unstiffened End-Plate Connections under Cyclic Loading, 1572
- Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618
- Influence Zone for End Bearing of Piles in Sand, 891
- Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901
- Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Nonconstrained Flagpole Design Formula, 1454
- Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822
- Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842
- Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30
- Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670
- Undrained Bearing Capacity of Square and Rectangular Footings, 27
- Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54
- Bed load**
- Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012
- Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183
- Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049

Bending moments

- Bed load movement**
- Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875
- Bed materials**
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- Bed roughness**
- Energy Dissipation on Reinforced Block Ramps, 1197
- Bedforms**
- Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993
- Lateral Variations in Suspended Sediment Concentration over Dunes, 1066
- Live-Bed Local Pier Scour Experiments, 995
- Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049
- Scour Countermeasures for Wing-Wall Abutments, 988
- Beds**
- Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220
- Bench marks**
- Benchmarking Initiatives in the Construction Industry: Lessons Learned and Improvement Opportunities, 1255
- Design and Installation of Deep Benchmarks in Expansive Soil, 1658
- Bending**
- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Construction of Customized Mass-Stiffness Pairs using Templates, 80
- Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545
- Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60
- Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220
- Evaluation of Local Bending in Profile-Wall Polyethylene Pipes, 1762
- Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
- Free Transverse and Lateral Vibration of Beams with Torsional Coupling, 59
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Splicing of Precast Concrete-Filled FRP Tubes, 224
- Strength and Behavior of Cold-Formed Steel Z-Sections Subjected to Major Axis Bending, 1600
- Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Bending moments**
- Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
- Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Bends, hydraulic

Bends, hydraulic

Case Study of an S-Shaped Spillway using Physical and Numerical Models, 1021

Benefit cost ratios

Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419

Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682

Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683

Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956

Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839

Benefits

Evaluation Model for Information Systems Benefits in Construction Management Processes, 398

Bentonite

Behavior of a Fiber-Reinforced Bentonite at Large Shear Displacements, 918

Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920

Dam Break Wave of Thixotropic Fluid, 960

Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892

Slug Test Analysis in Vertical Cutoff Walls. I: Analysis Methods, 817

Best management practice

Assessing the Hydrologic Performance of Best Management Practices, 1101

BMP Technology in Urban Watersheds: Current and Future Directions, 2052

Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775

Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232

Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129

Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357

What is Preproject Planning, Anyway?, 1241

Biaxial loads

New Three-Dimensional Damage Index for RC Buildings with Planar Irregularities, 1585

Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513

Biaxial stress

Multilaminate Macromodel for Concrete Masonry: Formulation and Verification, 1635

Bibliographies

Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407

Bicycles

Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716

Bids

Exploratory Study of Knowledge Sharing in Contracting Companies: A Sociotechnical Perspective, 380

2006 ASCE TRANSACTIONS

Exploring the Bidding Situation for Economically Most Advantageous Tender Projects using a Bidding Game, 390

Soil Penetration Modeling in Microtunneling Projects, 347

Testing Vickrey's Revenue Equivalence Theory in Construction Auctions, 330

Bifurcations

Nodal Point Relation for the Distribution of Sediments at Channel Bifurcation, 1043

Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649

Biochemical oxygen demand

Critical Analysis of Computing Equations for Determination of BOD by Dilution Methods, 651

Biodegradation

Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949

Anaerobic Degradability: Effect of Particulate COD, 637

Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626

Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613

Biodegradation of Phenol with Wastewater as a Cosubstrate in Upflow Anaerobic Sludge Blanket, 759

Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673

Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623

Bioremediation of Hazardous Wastes — A Review, 1946

Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595

Column Study Simulating In Situ Bioremediation of Perchlorate using Acetate as an Organic Substrate, 1950

Continuous Comatabolic Transformation of 4-Chlorophenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor, 617

Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591

Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940

Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681

Predicting the Performance of Activated Carbon, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688

Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745

Remediation of a TCE Plume using a Three-Component Strategy, 1952

Respirometric Assessment of Primary Sludge Fermentation Products, 590

Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597

SUBJECT INDEX

Bond stress

Biofilm

- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Column Test Studies of Ochre Biofilm Formation in Geotextile Filters, 896
- Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721
- Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745
- The Role of Biofloculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655
- Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727
- Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597
- Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Biological operations

- Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905

Biological treatment

- Aerobic Biofiltration Processes — Advances in Wastewater Treatment, 1969
- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Biologically Mediated Reductive Transformation of Ordinance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948
- Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
- Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595
- Continuous Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor, 617
- Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720
- Effect of Chloride Ions on the Dechlorination of Hexachlorobenzene in the Presence of Zero-Valent Iron, 1965
- Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713
- Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635
- Enhancing Bioremediation with Enzymatic Processes: A Review, 1947
- Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649
- Remediation of a TCE Plume using a Three-Component Strategy, 1952
- Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757
- Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727
- Tracer Studies in Laboratory Beach Simulating Tidal Influences, 668

- Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095
- Transport of Edible Oil Emulsions in Clayey Sands: 3D Sandbox Results and Model Validation, 1096
- Treatment of Dilute Wastewaters using a Novel Submerged Anaerobic Membrane Bioreactor, 604
- Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597

Biomass

- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Density and Activity Characterization of Activated Sludge Flocs, 724
- Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697
- Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698

Bitumen

- Bitumen Surface Energy Characterization Using a Contact Angle Approach, 1350

Blast loads

- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982
- Blast-Resistant Glazing Design, 97
- Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399

Blasting

- Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971
- Curtain Wall Designs for Wind and Blast: Three Case Studies, 99
- Managing Rock Blasting Work in Urban Environments, 1978
- Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793
- Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- Terrorism Risks and Blast Damage to Built Infrastructure, 1933
- Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Blocks

- Flow-Induced Failure of Cable-Tied Blocks, 964
- Strength and Elastic Properties of Stabilized Mud Block Masonry using Cement-Soil Mortars, 1313
- Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265

Bolts

- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Strengthening of Interior Slab — Column Connections using a Combination of FRP Sheets and Steel Bolts, 229

Bond stress

- Behavior of Reinforced Concrete Column — Steel Beam Roof Level T-Connections under Displacement Reversals, 1540

Nonlinear Analysis of Reinforced Concrete Beam — Columns with Bond-Slip, 559

Bonding

Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214

Bond Behavior of Near-Surface Mounted CFRP Laminated Strips under Monotonic and Cyclic Loading, 218

Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222

Critical Inclination of Compression Struts in Concrete Beams, 1508

Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264

Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197

Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198

Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 272

Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492

Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530

Fracture Mechanics Method for Mode-I Interface Evaluation of FRP Bonded to Concrete Substrates, 1346

Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138

Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864

Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236

Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109

Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200

Numerical Model for the Analysis of Unbonded Prestressed Members, 1442

Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Properties of Asphalt Concrete Layer Interfaces, 1312

Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199

Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485

Bonding strength

Bitumen Surface Energy Characterization Using a Contact Angle Approach, 1350

Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195

Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215

Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265

Bored piles

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Boreholes

Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671

Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52

Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510

Bottom ash

Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292

Boulders

Energy Dissipation on Reinforced Block Ramps, 1197

Flow Resistance of Rock Chutes with Protruding Boulders, 986

Boundaries

Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890

Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053

Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467

Modified Kostakov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230

Nonlinear Aeroelasticity: Continuum Theory, Flutter/Divergence Speed, and Plate Wing Model, 76

Plane Impulse Waves in Reservoirs, 1888

Upsetting Tests of Fresh Cementitious Composites for Extrusion, 450

Vibration of Open Cylindrical Shells with Stepped Thickness Variations, 514

Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893

Boundary element method

Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49

Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565

Laplace Boundary Element Model for the Thermoelastic Consolidation of Multilayered Media, 25

Load Transfer in Rammed Aggregate Piers, 51

Three-Dimensional Indirect Boundary Element Method Formulation for Dynamic Analysis of Frames Buried in Semiinfinite Elastic Media, 536

Boundary layer flow

Turbulent Boundary Layer Flows above a Porous Surface Subject to Flow Injection, 553

Boundary shear

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049

SUBJECT INDEX

Boussinesq equations

- Analyses of Drought Flow in Recession Period, 1085
- Chebyshev Finite-Spectral Method for 1D Boussinesq-Type Equations, 1876
- Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457
- Nearshore Wave Modeling with High-Order Boussinesq-Type Equations, 1887

Box girders

- Brace Forces in Steel Box Girders with Single Diagonal Lateral Bracing Systems, 1558
- Extending the Possibilities, 2034
- Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160

Bracing

- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Brace Forces in Steel Box Girders with Single Diagonal Lateral Bracing Systems, 1558
- Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545
- Ductile Web Fracture Initiation in Steel Shear Links, 1556
- Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473
- Interaction of Top Lateral and Internal Bracing Systems in Tub Girders, 1598
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472
- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1554
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1555

Brazil

- Strategic Decision Analysis for Selection of Landfill Sites, 1652

Breaking waves

- Distributions of Wave Steepness and Surf Parameter, 1855
- Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896
- Nearshore Wave Modeling with High-Order Boussinesq-Type Equations, 1887
- Well-Balanced Finite-Volume Model for Long-Wave Runup, 1866

Breakwaters

- Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860
- Hydrodynamic Characteristics of Pile-Supported Vertical Wall Breakwaters, 1863
- Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884

Bridge decks

- Liquefaction Phenomena underneath Marine Gravity Structures Subjected to Wave Loads, 1885
- Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540

Brick masonry

- Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209

Bricks

- Counterpoint, 2003
- Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341
- Performance of Overburnt Distorted Bricks as Aggregates in Pavement Works, 1352
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319

Bridge abutments

- Allowable Bearing Pressures of Bridge Sills on GRS Abutments with Flexible Facing, 855
- Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158
- Parallel Walls as an Abutment Scour Countermeasure, 982
- Scour around Bankline and Setback Abutments in Compound Channels, 933

Bridge construction

- Anatomy of a Successful Partnering Program on a Megaproject, 1915
- Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113
- Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328
- Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168
- Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391
- Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145
- Lessons Learned from an Emergency Bridge Replacement Project, 321
- Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
- Rapid Bridge Replacement under Emergency Situation: Case Study, 130

Bridge decks

- Consistent Approach to Calculating Stresses for Fatigue Design of Welded Rib-to-Web Connections in Steel Orthotropic Bridge Decks, 154
- Construction, Inspection, and Maintenance of FRP Deck Panels, 245
- Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126
- Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110
- Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208

Bridge decks

- Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Effective Slab Width in Prestressed Twin-Girder Composite Decks, 1573
- Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115
- Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143
- Fatigue Behavior of a Steel-Free FRP—Concrete Modular Bridge Deck System, 150
- FEA of Complex Bridge System with FRP Composite Deck, 196
- High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173
- Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122
- Penetrating Sealants for Concrete Bridge Decks—Selection Procedure, 156
- Performance Evaluation of FRP Bridge Deck Component under Torsion, 146
- Performance Prediction of Bridge Deck Systems using Markov Chains, 1378
- Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626
- Structural Behavior of FRP Composite Bridge Deck Panels, 141
- Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142
- Theoretical and Experimental Analysis of GFRP Bridge Deck under Temperature Gradient, 153
- Thermal Compatibility and Durability of Wearing Surfaces on GFRP Bridge Decks, 149

Bridge design

- Consistent Approach to Calculating Stresses for Fatigue Design of Welded Rib-to-Web Connections in Steel Orthotropic Bridge Decks, 154
- Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168
- Formation of Breakup Ice Jams at Bridges, 1056
- Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Placed in Context, 2026
- Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
- Rapid Bridge Replacement under Emergency Situation: Case Study, 130
- Royal Treatment, 2031
- Serpentine Span, 2000
- Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393
- Sun, Moon, and Stars, 2006

Bridge failure

- Collapse of the Quebec Bridge, 1907, 1373
- Riprap Failure at Circular Bridge Piers, 966

Bridge foundations

- Best Practices of Bridge System Management—A Synthesis, 1258

2006 ASCE TRANSACTIONS

Bridge inspection

- Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104
- Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161

Bridge loads

- Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132

Bridge maintenance

- Ambient Vibration Monitoring of a Highway Bridge Undergoing a Destructive Test, 163
- Best Practices of Bridge System Management—A Synthesis, 1258
- Construction, Inspection, and Maintenance of FRP Deck Panels, 245
- History and Aesthetics of the Bronx-Whitestone Bridge, 127
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Short- and Long-Term Effects of Element Costs and Failure Costs in *Pontis*, 166

Bridge tests

- Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104
- Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225

Bridges

- Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
- Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132
- Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963
- Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169
- Development, Shake Table Testing, and Design of FRP Seismic Restraints, 152
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Experimental Investigation of Clear-Water Local Scour at Pile Groups, 1042
- Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575
- Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178
- Influence of Parapets and Aspect Ratio on Live-Load Distribution, 123
- Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160
- Long-Term Structural Health Monitoring of the San Ysidro Bridge, 1365
- Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155
- Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234
- Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240
- Past Perfect, 1996

SUBJECT INDEX

Bridges, highway

- Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Probability-Based Bridge Network Performance Evaluation, 167
- Property Modification Factors for Seismically Isolated Bridges, 140
- Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626
- Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105
- Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551
- Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139
- Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162
- System for In-Service Strain Monitoring of Ordinary Bridges, 170
- Torsional Design of Hybrid Concrete Box Girders, 136
- Wood Members Strengthened with Mechanically Fastened FRP Strips, 228
- Bridges, arch**
 - Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390
 - Placed in Context, 2026
 - Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393
 - Sun, Moon, and Stars, 2006
- Bridges, box girder**
 - Long-Term Behavior of Precast Segmental Cantilever Bridges, 137
 - Royal Treatment, 2031
 - Transverse Analysis of Strutted Box Girder Bridges, 107
- Bridges, cable-stayed**
 - Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463
 - Experimental Evaluation of Compressive Behavior of Orthotropic Steel Plates for the New San Francisco — Oakland Bay Bridge, 118
 - Full-Scale Measurements to Investigate Rain — Wind Induced Cable-Stay Vibration and its Mitigation, 133
 - In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175
 - Safety Analysis of Moving Road Vehicles on a Long Bridge under Crosswind, 478
- Bridges, composite**
 - Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225
 - Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179
 - Development of FRP Short-Span Deployable Bridge — Experimental Results, 151
 - Performance Evaluation of FRP Bridge Deck Component under Torsion, 146
 - Prefix Beams: A Method of Calculation of Creep and Shrinkage Effects, 108
 - Thermal Compatibility and Durability of Wearing Surfaces on GFRP Bridge Decks, 149

Bridges, concrete

- Case Study of a High-Performance Concrete Bridge in Tennessee, 1992
- Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126
- Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110
- Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143
- Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119
- Fuzzy Logic Based Condition Rating of Existing Reinforced Concrete Bridges, 1392
- High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173
- Less is More, 2008
- Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Nonlinear Finite-Element Analysis of a FRP-Strengthened Reinforced Concrete Bridge, 106
- Penetrating Sealants for Concrete Bridge Decks — Selection Procedure, 156
- Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991
- Unloading and Reloading Stress — Strain Model for Confined Concrete, 1449

Bridges, girder

- Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231
- Behavior of Prestressed Concrete Strengthened with Various CFRP Systems Subjected to Fatigue Loading, 238
- Collapse during Construction of a Precast Girder Bridge, 1375
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113
- Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179
- Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120
- Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472
- Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117
- Shear Behavior of Corrugated Web Bridge Girders, 1457
- Shear Live-Load Distribution Factors for I-Girder Bridges, 124

Bridges, highway

- Ambient Vibration Monitoring of a Highway Bridge Undergoing a Destructive Test, 163
- Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225

- Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328
- Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179
- Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203
- Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128
- Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129
- Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391
- Fatigue Life of Girders with Trapezoidal Corrugated Webs, 1543
- Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138
- Fully Nonhydrostatic Modeling of Surface Waves, 479
- Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579
- Less is More, 2008
- Lessons Learned from an Emergency Bridge Replacement Project, 321
- Long-Term Durability of State Street Bridge on Interstate 80, 125
- New Methodology: Permit Checking of Vehicular Overloads, 131
- Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620
- Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
- Rapid Bridge Replacement under Emergency Situation: Case Study, 130
- Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity, 442
- Bridges, lift**
- Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168
- Bridges, long span**
- Extending the Possibilities, 2034
- Bridges, pedestrian**
- Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104
- Bridges, piers**
- Design, Construction, and Installation of a Floating Caisson used as a Bridge Pier, 1869
- Formation of Breakup Ice Jams at Bridges, 1056
- Reduction of Local Scour in the Vicinity of Bridge Pier Groups using Collars and Riprap, 947
- Riprap Failure at Circular Bridge Piers, 966
- Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980
- Vehicle Collision with Bridge Piers, 1
- Bridges, railroad**
- Investigation of Longitudinal Forces in a Concrete Railroad Trestle, 165
- Modifying Merchants Bridge, 2022

Bridges, skew

- Orthogonal Effects in Seismic Analysis of Skewed Bridges, 116

Bridges, spans

- Development of FRP Short-Span Deployable Bridge — Experimental Results, 151
- Less is More, 2008
- Serpentine Span, 2000

Bridges, steel

- Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177
- Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112
- Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113
- Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179
- Estimating Fatigue Life of Bridge Components Using Measured Strains, 176
- Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120
- Extending the Possibilities, 2034
- Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135
- Girder Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121
- Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122
- Long-Term Durability of State Street Bridge on Interstate 80, 125
- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Serpentine Span, 2000
- Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111

Bridges, suspension

- Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500
- History and Aesthetics of the Bronx-Whitestone Bridge, 127

Bridges, wooden

- Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480

Brittle failure

- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398

Brittleness

- Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439

Bubbles

- Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664
- Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
- Response of a Tropical Reservoir to Bubbler Destratification, 682

SUBJECT INDEX

Buckling

- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Buckling of Conventionally Sheathed Stud Walls, 1514
- Buckling of GFRP Columns: An Empirical Approach to Design, 242
- Buckling of Multiwalled Carbon Nanotubes using Timoshenko Beam Theory, 534
- Buckling of Simply Supported Rectangular Reissner—Mindlin Plates Subjected to Linearly Varying In-Plane Loading, 491
- Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205
- Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
- Creep Buckling of Shallow Parabolic Concrete Arches, 1601
- Design Analysis for Buckling of Tanks and Silos, 1443
- Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489
- Distortional Buckling of Cold-Formed Steel Members, 1503
- Distortional Buckling Tests on Cold-Formed Steel Beams, 1490
- Ductile Web Fracture Initiation in Steel Shear Links, 1556
- Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575
- Energy Capacity Criterion for the Design of Columns against Collapse, 493
- Experimental Investigation of Aluminum Alloy Thin-Walled Tubular Members in Combined Compression and Bending, 1632
- Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500
- "Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360
- Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528
- Limitations of FRP Jacking in Confining Old-Type Reinforced Concrete Members in Axial Compression, 190
- Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491
- The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513
- Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Plastic and Lateral-Torsional Buckling Behavior of Single Cold-Formed Channels Connected Back-to-Back, 1559
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581

Building design

- Shear Behavior of Corrugated Web Bridge Girders, 1457
- Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603
- Tests and Design of Aluminum Alloy Compression Members, 1546
- Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223
- Budgets**
 - Contingency Planning in Project Selection using Multi-objective Optimization and Chance Constraints, 1148
- Buffeting**
 - Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
- Building codes**
 - Adoption of the International Residential Code in a High Natural Hazards Region—An Overview, 85
 - Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
 - Database-Assisted Design of Low-Rise Buildings: Aerodynamic Considerations for a Practical Interpolation Scheme, 1529
 - Exposure Categories and Transitions for Design Wind Loads, 1612
 - Hurricane Mitigation of the Florida House Learning Center, 1382
 - Large Wind Missile Impact Capacity of Residential and Light Commercial Buildings, 1990
 - Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-05 (CD-ROM), 2076
 - New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100
 - Nonlinear *EI* Equation for Slender Composite Columns Bending about the Minor Axis, 1596
 - Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477
 - Performance-Based Structural Fire Safety, 1369
 - Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407
 - Return Period of Recorded Ground Motion, 1522
 - Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928
 - Standards Governing Glazing Design in Hurricane Regions, 94
 - Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86
- Building design**
 - Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101
 - Braced for the Future, 2040
 - Counterpoint, 2003
 - Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625
 - Generalized Interstory Drift Spectrum, 1523
 - Geometry Lesson, 2012
 - Impact of Quality on Building Costs, 1157

Building design

- Landmark Library, 2021
Latent Building Defects: Causes and Design Strategies to Prevent Them, 1386
Material Flow-Based Facility Layout Analysis of a Manufactured Housing Production Plant, 103
Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397
Overture to Omaha, 2024
Prototype Tool for Mechanical, Electrical, and Plumbing Coordination, 249
Return Period of Recorded Ground Motion, 1522
Starting Over, 2035
Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88

Buildings

- Analyses of a Two-Story Unreinforced Masonry Building, 1505
Challenges of Underpinning Two Landmark Buildings, 1985
Constructability Practices to Manage Sustainable Building Knowledge, 91
Construction Delays and Their Causative Factors in Nigeria, 354
Coupled Building Control Considering the Effects of Building/Connector Configuration, 1524
Example of a Hybrid Life-Cycle Assessment of Construction Processes, 1158
Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618
Mitigation of Soil Movements from Pile Driving, 1977
Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279
New Static Sunshade Design for Energy-Efficient Buildings, 422
The Paper Alternative, 2015
Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361

Buildings, high-rise

- An Avoidable Tragedy, 2039
Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561
Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468
Implementation of a Feasible Control Design Process Incorporating Robustness Criteria for Wind-Excited High-Rise Buildings, 1448
Landmark Reinvented, 2007
Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536
Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610
Starting Over, 2035
Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

Buildings, low-rise

- Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Buildings, 87
Database-Assisted Design of Low-Rise Buildings: Aerodynamic Considerations for a Practical Interpolation Scheme, 1529

- Recommendations for Seismic Evaluation and Retrofit of Low-Rise URM Structures, 1506
Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513

Buildings, multistory

- Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
Generalized Interstory Drift Spectrum, 1523
Modal Seismic Control of Building Frames by Artificial Neural Network, 252

Buildings, nonresidential

- Study of Mitigation Strategies for Progressive Collapse of a Reinforced Concrete Commercial Building, 1404

Buildings, office

- Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138
Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591
Starting Over, 2035

Buildings, public

- Braced for the Future, 2040
Counterpoint, 2003
A Good Move, 2037
Landmark Library, 2021
Overture to Omaha, 2024
Procurement Routes in Public Building and Construction Projects, 356
Regenesis, 2029

Buildings, residential

- Adoption of the International Residential Code in a High Natural Hazards Region — An Overview, 85
Assessment of Potential Seismic Damage to Residential Unreinforced Masonry Buildings in Northern Illinois, 1979
Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Building, 87
Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions, 1772
Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428
Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502
Impact of Property Management Services on Affordable Housing Residents in Atlanta, Georgia, 1387
New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309
Relationship between Housing Affordability and Economic Development in Mainland China — Case of Shanghai, 1779
Residential Building Loads: Review and Roadmap for the Future, 2083
Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409
Build/Operate/Transfer
Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139

SUBJECT INDEX

California

Bulkheads

- Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Buoyant jets

- Global Behaviors of a Round Buoyant Jet in a Countercurrent, 991
- Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974

Bureau of Reclamation

- Hydrologic Modeling Inventory: Cooperative Research Effort, 1175

Buried pipes

- Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
- Development of Real-Time Safety Control System for Urban Gas Supply Network, 801
- Holistic Approach for Assessing the Vulnerability of Buried Pipelines to Earthquake Loads, 1923
- Reliability Analysis of Deflection of Buried Flexible Pipes, 1754
- Soil Restraint to Oblique Movement of Buried Pipes in Dense Sand, 1681
- Thermal Transfer Analysis of a Freezing Soil Medium with an Embedded Pipeline, 181

Buried structures

- Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897
- Laboratory Study of Liquefaction due to Wave-Seabed Interaction, 856
- Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390
- Three-Dimensional Indirect Boundary Element Method Formulation for Dynamic Analysis of Frames Buried in Semiinfinite Elastic Media, 536

Buses

- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718
- Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667

Business management

- Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253
- Construction Business Automation System, 296
- Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309
- Interactions between Business and Financial Strategies of Large Engineering and Construction Firms, 1254
- Leveraging Personality for Business Success, 1921
- Operations Management for Engineering Consulting Firms: A Case Study, 1249

Cables

- Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500
- Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157

- Dynamic Behavior of Nonlinear Cable System. IV, 464

- Experimental Verification of Smart Cable Damping, 462

- Full-Scale Measurements to Investigate Rain — Wind Induced Cable-Stay Vibration and its Mitigation, 133
- Nonlinear Analytical Solution for Cable Truss, 446
- Shape Selection for Lattice Structures, 1608
- Symmetric Catenary of a Uniform Elastic Cable of Neo-Hookean Material, 509

Cadmium

- Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641
- Influence of Pore-Water Velocity on Transport Behavior of Cadmium: Equilibrium versus Nonequilibrium, 1958

Caissons

- Design, Construction, and Installation of a Floating Caisson used as a Bridge Pier, 1869

Calcium carbonate

- Assessing the Carbonation Behavior of Cementitious Materials, 1351

Calibration

- Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888
- Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666
- Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff, 761
- Calibrating Holistic Water Resources — Economic Models, 1844
- Calibration of Strapdown Magnetometers in Magnetic Field Domain, 68
- Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943
- Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128
- Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217
- Resistance Factors for Use in Shallow Foundation LRFD, 889

California

- Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683
- Deflection Protection, 2032
- Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711
- Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111
- Experimental Evaluation of Compressive Behavior of Orthotropic Steel Plates for the New San Francisco — Oakland Bay Bridge, 118
- Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

- Fourway: Graphical Tool for Performance-Based Earthquake Engineering, 1564
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421
- Regenes, 2029
- Short- and Long-Term Effects of Element Costs and Failure Costs in *Pontis*, 166
- Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099
- California bearing ratio**
- Compaction Delay Effects on Properties of Lime-Treated Soil, 1287
- Factors Affecting Portable Falling Weight Deflectometer Measurements, 853
- Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280
- Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291
- Canada**
- Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317
- Automated Access, 2036
- Bivariate Flood Frequency Analysis Using the Copula Method, 1086
- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- Collapse during Construction of a Precast Girder Bridge, 1375
- Collapse of the Quebec Bridge, 1907, 1373
- Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions, 1772
- Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663
- Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701
- Ice Stresses in Reservoirs: Effect of Water Level Fluctuations, 183
- Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808
- Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409
- Treatment of Acid Rock Drainage in a Meromictic Mine Pit Lake, 640
- Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750
- Canals**
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
- Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168

- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205
- Cantilevers**
- Functionally Graded Stitched Laminates: Illustration on the Example of a Double Cantilever Beam, 78
- Capacity**
- Probabilistic Model for Signalized Intersection Capacity with a Short Right-Turn Lane, 1685
- Capital costs**
- CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312
- Cost-Effectiveness of Railway Infrastructure Renewal Maintenance, 1729
- Framework to Support the Representations of Semantic Mappings for a Hybrid Integration Strategy, 268
- Modeling Cost Escalation in Large Infrastructure Projects, 373
- Carbon**
- Biologically Mediated Reductive Transformation of Ordinance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948
- Buckling of Multiwalled Carbon Nanotubes using Timoshenko Beam Theory, 534
- Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669
- Ecologically Concrete with High Volume of Lagoon Ash, 1310
- Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630
- Carbon dioxide**
- Assessing the Carbonation Behavior of Cementitious Materials, 1351
- Carbon monoxide**
- Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707
- Carbonation**
- Assessing the Carbonation Behavior of Cementitious Materials, 1351
- Performance of a Penetrating Corrosion Inhibitor in Concrete Affected by Carbonation-Induced Corrosion, 1359
- Case reports**
- Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932

SUBJECT INDEX

Cements

- Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045
- Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Case Study of a High-Performance Concrete Bridge in Tennessee, 1992
- Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786
- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975
- Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433
- Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
- Contractor Key Competitiveness Indicators: A China Study, 329
- Curtain Wall Designs for Wind and Blast: Three Case Studies, 99
- Detection of Illegal Dump Deposit with GPR: Case Study, 1955
- Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642
- Disaster Recovery System Model with E-Government Case Study, 1937
- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Fundamental Principles for Avoiding Congested Work Areas — A Case Study, 1989
- Health Risk Assessment for a Contaminated Site: A Case Study, 1964
- Identification of Contaminant Sources in Water Distribution Systems using Simulation — Optimization Method: Case Study, 1827
- In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Key Performance Indicators for Strategic Healthcare Facilities Maintenance, 322
- Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Case Study, 1413
- Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922
- Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229
- Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401
- Moving a Reinforced-Concrete Building: Case Study, 299
- Multiojective Strategic Evaluation for Urban Development in Kaohsiung, Taiwan: Case Study, 1791
- Operations Management for Engineering Consulting Firms: A Case Study, 1249
- Rapid Bridge Replacement under Emergency Situation: Case Study, 130
- Relationship between Housing Affordability and Economic Development in Mainland China — Case of Shanghai, 1779
- Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409

- Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781
- Safety Climate in Construction Industry: A Case Study in Hong Kong, 345
- Seismic Response of a Composite Landfill Cover, 819
- Sudden Failure of a Heavily Loaded Container Pavement, 912
- Cast iron**
- Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Catchments**
- Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083
- Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097
- Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801
- Cavitation**
- Development of Air Concentration on Chute Spillways, 1023
- Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168
- Stress Zones Near Displacement Piers: 1. Plastic and Liquefied Behavior, 782
- Cement grouting**
- Factors Affecting the Creep Behavior of Grouted Sand, 823
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289
- Cementation**
- Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792
- Small-Strain Behavior of Granular Soils. 1: Model for Cemented and Uncemented Sands and Gravels, 876
- Upsetting Tests of Fresh Cementitious Composites for Extrusion, 450
- Cements**
- Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724
- Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325
- Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323
- Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279
- High-Volume Fly Ash Concrete: Analysis and Application, 1976
- Microstructure and Compactive Instabilities of a Stabilized Residue, 1290
- New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309

- Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808
- Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Study of Effects of Natural Pozzolan on Properties of Cement Mortars, 1356

Centrifuge

- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Centrifuge model

- Centrifuge Model Studies of the Seismic Response of Reinforced Soil Slopes, 813
- Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Effect of Penetration Rate on Penetrometer Resistance in Clay, 887
- Geotechnical Physical Modeling for Education: Learning Theory Approach, 1431
- Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
- Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Change management

- Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects, 333
- Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273

Channel design

- Downstream Hydraulic Geometry of Alluvial Channels, 1067

Channel flow

- Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772
- Electromagnetic Wave Surface Velocimetry, 946
- Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965
- Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171
- Green's Function of the Linearized de Saint-Venant Equations, 447
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979

Channel morphology

- Downstream Hydraulic Geometry of Alluvial Channels, 1067

Channels

- Asymmetric Flow in Symmetric Supercritical Expansions, 953
- Capillarity and Evaporation Exacerbated Seepage Losses from Unlined Channels, 1235
- Critical Bed Shear Stress for Unisize Sediment, 949
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488

- Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489
- Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633
- Hydraulic Jumps in Sloping Channels: Sequent Depth Ratio, 1037

- Nodal Point Relation for the Distribution of Sediments at Channel Bifurcation, 1043

Chemical grouting

- Factors Affecting the Creep Behavior of Grouted Sand, 823

Chemical properties

- Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907
- Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510

Chemical treatment

- Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
- How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790

Chemicals

- Chromium Redox Chemistry in Drinking Water Systems, 694
- Development of a University Laboratory Chemical Inventory and Exchange Program, 1945
- Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262

Chesapeake Bay

- Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625

Chicago

- An Avoidable Tragedy, 2039
- A Good Move, 2037
- Through it All, 2004
- Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

China

- Above it All, 2042
- Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323
- Contractor Key Competitiveness Indicators: A China Study, 329
- Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309
- Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072
- Disaster Recovery System Model with E-Government Case Study, 1937
- Extending the Possibilities, 2034
- Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310
- Relationship between Housing Affordability and Economic Development in Mainland China—Case of Shanghai, 1779
- Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087

SUBJECT INDEX

Clays

Strengths, Weaknesses, Opportunities, and Threats for Foreign-Invested Construction Enterprises: A China Study, 384

Sun, Moon, and Stars, 2006

Utilization of Trenchless Construction Methods in Mainland China to Sustain Urban Infrastructure, 1984

Chlorides

Effect of Chloride Ions on the Dechlorination of Hexachlorobenzene in the Presence of Zero-Valent Iron, 1965

Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202

Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656

Chlorination

Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963

Inactivation Kinetics of the Cyanobacterial Toxin Microcystin-LR by Free Chlorine, 692

MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584

Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672

Chlorine

Iron Oxide Enhanced Chlorine Decay and Disinfection By-Product Formation, 767

Chromium

Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623

Chromium Redox Chemistry in Drinking Water Systems, 694

Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641

Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959

Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653

Claims

Avoiding and Minimizing Construction Delay Claim Disputes in Relational Contracting, 1421

Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415

"Is That Not Horrific?" — or "You Have Been Warned!" *Burchell v. Bullard* and Implications for English Construction Law, 1428

Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436

Classification

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411

Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759

Clay liners

Evaluating the Long-Term Performance of Geosynthetic Clay Liners Exposed to Freeze-Thaw, 804

Clays

Bearing Capacity of Piles Rafts on Soft Clay Soils, 927

Behavior of One-Dimensional Consolidation under Time-Dependent Loading, 480

Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806

Comparison of Methods for Determining Specific Surface Area of Soils, 865

Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293

Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826

Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907

Drag Force on Single Piles in Clay Subjected to Surcharge Loading, 20

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Effect of Penetration Rate on Penetrometer Resistance in Clay, 887

Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871

Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862

Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45

Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279

Ground Movement Predictions for Braced Excavations in Undrained Clay, 821

How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790

Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773

Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666

Interpretation of Impact Penetration Measurements in Soft Clays, 848

Laboratory Evaluation of Smear Zone and Correlation between Permeability and Moisture Content, 867

Laboratory Simulation of Field Sampling: Comparison with Ideal Sampling and Field Data, 810

Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959

Liquefaction Susceptibility Criteria for Silts and Clays, 908

Numerical Analysis of T-Bar Penetration in Soft Clay, 53

Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834

Parametric Study of One — Dimensional Solute Transport in Deformable Porous Media, 870

Physical Response of Geomembrane Wrinkles Overlying Compacted Clay, 902

Physio-Chemical Changes in Clay Caused by Ion Migration from Lime Piles, 1281

Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780

Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Practical Model of Frost Heave in Clay, 786

Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881

- Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808
- Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267
- Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319

Climatic changes

- Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127
- Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618
- Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187
- Safety Climate in Construction Industry: A Case Study in Hong Kong, 345
- Sensitivity Analyses and Sensitivity Coefficients of Standardized Daily ASCE-Penman-Monteith Equation, 1228
- Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123

Climatic data

- Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

Climatology

- Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114
- Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758

Clogging

- Design of Street Curb Opening Inlets using a Decay-Based Clogging Factor, 1057
- Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746
- Stress-Controlled Filtration with Compressible Particles, 858

Closed form solutions

- Closed-Form Stiffness Matrix for the Four-Node Quadrilateral Element with a Fully Populated Material Stiffness, 581
- Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494
- Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606
- Nonlinear Analytical Solution for Cable Truss, 446
- Postbuckling of Beam Subjected to Intermediate Follow-up Force, 436

Cloud seeding

- Guidelines for Cloud Seeding to Augment Precipitation, 2073

Coagulation

- Charge Reversal Effect on Blanket in Full-Scale Flocculation Clarifier, 756
- Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772
- Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664
- Heavy Metals Removal from Acidic and Saline Soil Leachate using Either Electrochemical Coagulation or Chemical Precipitation, 660
- Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647

Coarse-grained soils

- Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Coastal engineering

- Coastal Dynamics 2005 -- State of the Practice, 2055
- Estuarine and Coastal Modeling -- Proceedings of the Ninth International Conference, 2064
- Explicit Expression for Beach Response to Non-Stationary Forcing near a Groyne, 1867
- Offshore Technology in Civil Engineering: Hall of Fame Papers from the Early Years, 2077
- Prediction of Long Forcing Waves for Harbor Agitation Studies, 1871

Coastal environment

- Chebyshev Finite-Spectral Method for 1D Boussinesq-Type Equations, 1876
- Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
- Explicit Formulation of the Shields Diagram for Incipient Motion of Sediment, 1041
- Large Wind Missile Impact Capacity of Residential and Light Commercial Buildings, 1990
- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Real Estate Market Response to Coastal Flood Hazards, 1936
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979
- Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902

Coastal management

- The Gulf of Mexico Decommissioning Market, 369
- Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Coastal morphology

- Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900
- Explicit Expression for Beach Response to Non-Stationary Forcing near a Groyne, 1867

Coastal processes

- Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900

SUBJECT INDEX

Explicit Expression for Beach Response to Non-Stationary Forcing near a Groyne, 1867

Coastal structures

Coastal Dynamics 2005 -- State of the Practice, 2055

Explicit Expression for Beach Response to Non-Stationary Forcing near a Groyne, 1867

Fluid-Soil-Structure Interaction in Liquefaction around a Cyclically Moving Cylinder, 1882

Lessons from Katrina, 2009

Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152

Coating

Effective Moduli of Coated Particulate Composites with BCC Structure at High Concentration, 525

Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Codes

Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222

Critical Review of Deflection Formulas for FRP-RC Members, 206

Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553

Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160

Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439

Coefficients

Broad-Crested Weirs with Rectangular Compound Cross Sections, 1193

Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196

Estimation of Evapotranspiration of Different-Sized Navel-Orange Tree Orchards using Energy Balance, 1164

Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033

Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766

Flood Estimation by GIUH-Based Clark and Nash Models, 1124

Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948

Galerkin Solution for Linear Stochastic Algebraic Equations, 570

Hydraulic Performance Curves for Highway Culverts, 978

Measured and Predicted Herbicide Removal by Mulch, 702

Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221

Nodal Point Relation for the Distribution of Sediments at Channel Bifurcation, 1043

Peak Wind Load Comparison: Theoretical Estimates and ASCE 7, 1551

Performance of Slit Weir, 1029

Sensitivity Analyses and Sensitivity Coefficients of Standardized Daily ASCE-Penman-Monteith Equation, 1228

Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547

Cold-formed steel

Cofferdams

CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191

Cohesionless sediment

Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875

Lateral Variations in Suspended Sediment Concentration over Dunes, 1066

Cohesionless soils

Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822

Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877

Cohesive sediment

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990

Guidelines for Pipeline On-Bottom Stability on Liquefied Noncohesive Seabeds, 1883

Cohesive soils

Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980

Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Cold regions

Cold Regions Engineering 2006 -- Current Practices in Cold Regions Engineering, 2056

Cold weather construction

Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180

Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262

Cold-formed steel

Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Building, 87

Behavior of Complex Hat Shapes used as Truss Chord Members, 1501

Cold-Formed Stainless Steel Sections Subjected to Web Crippling, 1451

Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives, 1497

Complex Edge Stiffeners for Thin-Walled Members, 1459

Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496

Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488

Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489

Distortional Buckling of Cold-Formed Steel Members, 1503

Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502

Experiments of Cold-Formed Steel Connections and Portal Frames, 1498

Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633

Cold-formed steel

- Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500
- Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491
- Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308
- Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494
- Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495
- Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1499
- Strength and Behavior of Cold-Formed Steel Z-Sections Subjected to Major Axis Bending, 1600
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493

Collapse

- An Avoidable Tragedy, 2039
- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Collapse during Construction of a Precast Girder Bridge, 1375
- Collapse of the Quebec Bridge, 1907, 1373
- Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Design Analysis for Buckling of Tanks and Silos, 1443
- Effects of Ground Motion Parameters and Cyclic Degradation Behavior on Collapse Response of Steel Moment-Resisting Frames, 1592
- Energy Capacity Criterion for the Design of Columns against Collapse, 493
- Global System Considerations for Progressive Collapse with Extensions to Other Natural and Man-Made Hazards, 1406
- Lagrangian Approach to Structural Collapse Simulation, 516
- Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
- The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513
- Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399
- Practical Means for Energy-Based Analyses of Disproportionate Collapse Potential, 1400
- Preventing Disproportionate Collapse, 1396
- Progressive Collapse — An Implosion Contractor's Stock in Trade, 1405
- Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407
- Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- Study of Mitigation Strategies for Progressive Collapse of a Reinforced Concrete Commercial Building, 1404

Collisions

- Vehicle Collision with Bridge Piers, 1

Colloids

- Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772
- Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323

2006 ASCE TRANSACTIONS

- Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095

Colombia

- Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793

Color

- Applicability of Equilibrium Isotherm Models for the Biosorptive Uptakes in Comparison to Activated Carbon-Based Adsorption, 764
- Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656
- Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940

Colorado

- Braced for the Future, 2040
- Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- GEO-Volution: The Evolution of Colorado's Geological and Geotechnical Engineering Practice, 2070
- High-Volume Fly Ash Concrete: Analysis and Application, 1976
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851
- Probability-Based Bridge Network Performance Evaluation, 167
- Quenching Thornton's Thirst, 2043

Colorado River

- GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176
- Modified K-NN Model for Stochastic Streamflow Simulation, 1110

Columns

- Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673
- Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623
- Buckling of GFRP Columns: An Empirical Approach to Design, 242
- Design of Circular Base Plates, 1970
- Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
- Energy Capacity Criterion for the Design of Columns against Collapse, 493
- Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473
- Improved STrength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509
- Interaction Diagram and Load Effects for Vertical Pile Groups with Application to the AASHTO LRFD, 1484

SUBJECT INDEX

- Nonlinear *EI* Equation for Slender Composite Columns Bending about the Minor Axis, 1596
- Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Postbuckling of Elastic Columns with Second-Mode Imperfection, 527
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516
- Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243
- Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474
- Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991
- Tests and Design of Aluminum Alloy Compression Members, 1546
- Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254
- Combined sewer overflow**
- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- Combined sewers**
- Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation, 1119
- Combined stress**
- Degradation of Sands due to Combined Sinusoidal Loading, 930
- Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
- Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Combustion**
- Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708
- Emission of Polycyclic Aromatic Hydrocarbons on the Combustion of Liquid Crystal Display Components, 716
- Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869
- Communication**
- Approaches to Improving the Quality of Construction Drawings from Owner's Perspective, 405
- Disaster Recovery System Model with E-Government Case Study, 1937
- Experimental Assessment of Wireless Construction Technologies, 388
- Investigation of Critical Success Factors in Construction Project Briefing by Way of Content Analysis, 404
- Use of a WBS Matrix to Improve Interface Management in Projects, 294

Competition

Commute

- CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799

Compacted soils

- Design of Compacted Lateritic Soil Liners and Covers, 798
- Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906
- Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686

Compaction

- Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266
- Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322
- High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349
- Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280
- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305

Comparative studies

- Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723
- Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Comparative Analysis of Water Vulnerability Assessment Methodologies, 1146
- Comparative Study of Different Subbase Materials, 1326
- Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169
- Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806
- Comparison of Methods for Determining Specific Surface Area of Soils, 865
- Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834
- Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222
- Comparison of Tests of a Nonlinear Structure using a Shake Table and the EFT Method, 1584
- Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776
- On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554

Compensation

- At a Crossroads — Is Value-based Compensation the Answer?, 1919
- Procurement Routes in Public Building and Construction Projects, 356

Competition

- Contractor Key Competitiveness Indicators: A China Study, 329

EDTA-Enhanced Washing for Remediation of Pb- and/or Zn-Contaminated Soils, 730

Composite beams

Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205

Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203

Effective Slab Width in Prestressed Twin-Girder Composite Decks, 1573

Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440

Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441

Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460

Preflex Beams: A Method of Calculation of Creep and Shrinkage Effects, 108

Composite materials

Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333

Concrete Beams Strengthened with Prestressed Near Surface Mounted CFRP, 194

Construction, Inspection, and Maintenance of FRP Deck Panels, 245

Damage Theory Based on Composite Mechanics, 561

Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197

Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325

Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518

Effective Medium Theories for Multicomponent Poroe-lastic Composites, 486

Effective Moduli of Coated Particulate Composites with BCC Structure at High Concentration, 525

Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575

Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560

Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526

Failure Mechanisms and Deployment Accuracy of Elastic-Memory Composites, 75

Fatigue Behavior of a Steel-Free FRP — Concrete Modular Bridge Deck System, 150

FEA of Complex Bridge System with FRP Composite Deck, 196

Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306

Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138

Internal Forces for Statically Indeterminate Structures having Different Moduli in Tension and Compression, 508

Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032

Long-Term Durability of State Street Bridge on Interstate 80, 125

Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234

Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62

Modeling of Prestressed Concrete-Filled Circular Composite Tubes Subjected to Bending and Axial Loads, 1483

Multiscale Nonlinear Framework for the Long-Term Behavior of Layered Composite Structures, 577

Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240

Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516

Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335

Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629

Shear Resistance of FRP RC Beams: Experimental Study, 235

Shear Response of Concrete-Filled FRP Composite, 1533

A Stochastic Transformation Field Theory for Heterogeneous Materials, 564

Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603

System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521

Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142

Upsetting Tests of Fresh Cementitious Composites for Extrusion, 450

Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223

Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303

Wood Members Strengthened with Mechanically Fastened FRP Strips, 228

Composite structures

Behavior of Reinforced Concrete Column — Steel Beam Roof Level T-Connections under Displacement Reversals, 1540

Composite Construction in Steel and Concrete V, 2057

Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147

Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143

Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix — Grid Composites, 210

Multiscale Nonlinear Framework for the Long-Term Behavior of Layered Composite Structures, 577

Nine-Node Resultant-Stress Shell Element for Free Vibration and Large Deflection of Composite Laminates, 69

Nonlinear *EI* Equation for Slender Composite Columns Bending about the Minor Axis, 1596

Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477

Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337

Shear Response of Concrete-Filled FRP Composite, 1533

SUBJECT INDEX

Structural Behavior of FRP Composite Bridge Deck Panels, 141

Composting

Bioremediation of Petroleum-Contaminated Soil using Composting, 1951

Compressibility

Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562

Experimental Study of Macro- and Microbehavior of Natural Diatomite, 833

Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279

Relating Damping to Soil Permeability, 28

Compression

"Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360

Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440

Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528

Internal Forces for Statically Indeterminate Structures having Different Moduli in Tension and Compression, 508

Limitations of FRP Jacking in Confining Old-Type Reinforced Concrete Members in Axial Compression, 190

Mechanical Grading of Round Timber Beams, 1261

Mechanics of Web Panel Postbuckling Behavior in Shear, 1595

Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832

Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991

Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32

Compression tests

Experimental Evaluation of Compressive Behavior of Orthotropic Steel Plates for the New San Francisco — Oakland Bay Bridge, 118

Shear Banding in Sandstone: Physical and Numerical Studies, 31

Compressive strength

Application of Polymers to Textile-Reinforced Concrete, 1338

Compaction Delay Effects on Properties of Lime-Treated Soil, 1287

Development and Production of Ready-Mixed Soil Material, 1354

Ecofriendly Concrete with High Volume of Lagoon Ash, 1310

High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347

Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280

Modeling Compressive Strength Development in Florida Concrete, 1362

Potential of Wood Waste Ash as an Additive in Concrete, 1330

Prediction of Concrete Strength using Neural-Expert System, 1311

Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597

Computation

Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212

Study of Effects of Natural Pozzolan on Properties of Cement Mortars, 1356

Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738

Computation

17th Analysis and Computation Specialty Conference, 2044

3D Calculation of Stopping-Sight Distance from GPS Data, 1739

Alternative Computation of Dean's Overfill Ratio, 1868

Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18

Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids, 435

Critical Analysis of Computing Equations for Determination of BOD by Dilution Methods, 651

Daniel W. Mead Prizes for Younger Members and Students: Ethically Understanding the Role of Computer Software in Engineering Calculation, 2002

Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8

Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625

Efficient Computation of Response Sensitivities for Inelastic Structures, 1464

Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886

Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054

Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837

Interaction Diagram and Load Effects for Vertical Pile Groups with Application to the AASHTO LRFD, 1484

Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Multiphase/Multidomain Computations using Continuum and Lattice — Boltzmann Methods, 84

Optimal Design of Redundant Water Distribution Networks using a Cluster of Workstations, 1840

Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257

Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337

Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255

Potential Computational Benefits of Geometric, Kinematic, and Behavioral Downsampling of Microscopic Traffic Network Simulation, 277

Refinement Indicator for Mesh Adaptation in Shallow-Water Modeling, 1015

Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30

Structural Damage Detection via Modal Data with Genetic Algorithms, 1586

Computation

Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017

Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968

Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254

Computational fluid dynamics technique

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67

Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860

Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024

Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224

Three-Dimensional CFD Predictions and Experimental Comparison of Pressure Drop of Some Common Pipe Fittings in Turbulent Flow, 426

Transverse Pavement Grooving against Hydroplaning. I: Simulation Model, 1709

Transverse Pavement Grooving against Hydroplaning. II: Design, 1710

Validation of a Three-Dimensional Computational Fluid Dynamics Model of a Contact Tank, 1005

Computer aided design

Computer Representation to Support Conceptual Structural Design within a Building Architectural Context, 253

Computer-Aided Site Layout Planning, 302

Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234

Potential of Augmented Reality as an Assistant Viewer for Computer-Aided Drawing, 280

Computer aided drafting (CAD)

Construction Scheduling and Progress Control using Geographical Information Systems, 285

Potential of Augmented Reality as an Assistant Viewer for Computer-Aided Drawing, 280

Computer aided instruction

Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93

Computer aided scheduling

MACROS: Multiobjective Automated Construction Resource Optimization System, 1252

Object-Oriented Scheduling for Repetitive Projects with Soft Logics, 291

Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337

Work Continuity Constraints in Project Scheduling, 289

Computer aided simulation

Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408

Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93

2006 ASCE TRANSACTIONS

Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758

Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248

Issues and Solutions to Macroscopic Traffic Dispersion Modeling, 1723

Procedures for Calibrating TRANSYT Platoon Dispersion Model, 1722

Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409

Computer analysis

Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054

Computer applications

Application of Web Services for Structural Engineering Systems, 260

Civil Engineering: A Changing Profession, 1918

Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290

Conflict Resolution in Construction Disputes using the Graph Model, 391

Engineering with the Spreadsheet — Structural Engineering Templates Using Excel, 2063

GeoCongress 2006: Geotechnical Engineering in the Information Technology Age, 2068

Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274

Neural Networks for Estimating the Productivity of Concreting Activities, 353

Object-Oriented Scheduling for Repetitive Projects with Soft Logics, 291

ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800

Research Publication Trends and Topics in *Computing in Civil Engineering*, 246

Transverse Analysis of Strutted Box Girder Bridges, 107

Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273

Computer graphics

Application of Web Services for Structural Engineering Systems, 260

Computer models

Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942

Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798

Exploring the Bidding Situation for Economically Most Advantageous Tender Projects using a Bidding Game, 390

Hydrologic Modeling Inventory: Cooperative Research Effort, 1175

Lighting Requirements for Nighttime Highway Construction, 331

Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Optimal Planning and Scheduling for Repetitive Construction Projects, 1238

Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337

SUBJECT INDEX

- Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
- Computer networks**
- Internet-Enabled Remote Observation and Control of a Shake Table Experiment, 271
- Computer programming**
- Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624
- Development of an Industry Foundation Classes Assembly Viewer, 257
- Elevation-Dependent Management of the Edwards Aquifer: Linked Mathematical and Dynamic Programming Approach, 1836
- Irrigation Scheduling with Travel Times, 1188
- Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402
- Optimal Irrigation Planning under Water Scarcity, 1189
- Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Optimization of Water Distribution Networks using Integer Linear Programming, 981
- Prototype Tool for Mechanical, Electrical, and Plumbing Coordination, 249
- Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Computer software**
- Analytical Procedures for Estimating Capacity of Free-way Weaving, Merge, and Diverge Sections, 1731
- Civil Engineering: A Changing Profession, 1918
- Daniel W. Mead Prizes for Younger Members and Students: Ethically Understanding the Role of Computer Software in Engineering Calculation, 2002
- Development of an Industry Foundation Classes Assembly Viewer, 257
- Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93
- Engineering with the Spreadsheet — Structural Engineering Templates Using Excel, 2063
- GPS Precise Point Positioning Software for Ground Control Point Establishment in Remote Sensing Applications, 1642
- HAZUS — Its Development and Its Future, 1926
- Improving Value Generation in the Design Process of Industrial Projects using CAVT, 1243
- Internet-Enabled Remote Observation and Control of a Shake Table Experiment, 271
- Methodology for Ranking the Elements of Water-Supply Networks, 1160
- Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255
- Stochastic Streamflow Simulation using SAMS-2003, 1177
- Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710
- Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223
- Computers**
- TCLP Heavy Metal Leaching of Personal Computer Components, 638

Concrete

- Concentrated loads**
- Concentrically Loaded Circular Steel Plates Bearing on Plain Concrete, 1614
- Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487
- Transverse Analysis of Strutted Box Girder Bridges, 107
- Concentration**
- Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033
- Global Behaviors of a Round Buoyant Jet in a Countercurrent, 991
- Conceptual design**
- Computer Representation to Support Conceptual Structural Design within a Building Architectural Context, 253
- Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
- Concrete**
- Analyses of Heated Concrete Spalling due to Restrained Thermal Dilation: Application to the "Chunnel" Fire, 552
- Analysis of Strength of Concrete using Design of Experiments and Neural Networks, 1329
- Analytical Stress — Strain Relationship for Concrete Confined by Steel Stirrups and/or FRP Jackets, 1577
- Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098
- Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296
- Behavior of Beam-Column Joints made of Sustainable Concrete under Cyclic Loading, 1336
- Bond Behavior of Near-Surface Mounted CFRP Laminated Strips under Monotonic and Cyclic Loading, 218
- Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227
- Composite Construction in Steel and Concrete V, 2057
- Compression Field Modeling of Confined Concrete: Constitutive Models, 1318
- Concentrically Loaded Circular Steel Plates Bearing on Plain Concrete, 1614
- Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266
- Creep Buckling of Shallow Parabolic Concrete Arches, 1601
- Damage Theory Based on Composite Mechanics, 561
- Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737
- Determining the Tensile Stress-Crack Opening Curve of Concrete by Inverse Analysis, 449
- Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215
- Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202
- Effects of Silica Fume and Rice Husk Ash on the Properties of Heavyweight Concrete, 1301
- Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323
- Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538
- Exploring Concrete Slump Model using Artificial Neural Networks, 266

- Flexural Behavior of Hybrid FRP-Concrete-Steel Double-Skin Tubular Members, 233
- High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347
- Improved Image Analysis for Evaluating Concrete Damage, 265
- Investigation of Longitudinal Forces in a Concrete Railroad Trestle, 165
- Measuring System for Cracks in Concrete using Multitemporal Images, 1651
- Modeling Compressive Strength Development in Florida Concrete, 1362
- Moment Capacities and Deflection Limits of PFRP Sheet Piles, 241
- Neural Networks for Estimating the Productivity of Concreting Activities, 353
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389
- Overture to Omaha, 2024
- Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460
- Performance of a Penetrating Corrosion Inhibitor in Concrete Affected by Carbonation-Induced Corrosion, 1359
- Potential of Wood Waste Ash as an Additive in Concrete, 1330
- Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298
- Prediction of Concrete Strength using Neural-Expert System, 1311
- Probabilistic Demand Models and Fragility Curves for Reinforced Concrete Frames, 1593
- Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262
- Role of an Amorphous Silica in Portland Cement Concrete, 1348
- Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516
- Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblies, 1539
- Size Effect on Strength of Quasi — Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558
- Size Effects and the Dynamic Response of Plain Concrete, 1315
- Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86
- Study on the Average Fracture Energy for Crack Propagation in Concrete, 1357
- Toward a Physical Damage Variable for Concrete, 512
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319
- Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213
- Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307
- Concrete aggregates**
- Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268
- Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. II: Experimental Results and Quality Assurance, 1269
- Concrete beams**
- Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317
- Concrete Beams Strengthened with Prestressed Near Surface Mounted CFRP, 194
- Critical Inclination of Compression Struts in Concrete Beams, 1508
- Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264
- Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197
- Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198
- Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484
- Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345
- Empirical Approach for Determining Ultimate FRP Strain in FRP-Strengthened Concrete Beams, 201
- Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220
- Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221
- Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminate Systems, 232
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441
- Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200
- Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192
- Performance in Fire of Small-Scale CFRP Strengthened Concrete Beams, 239
- Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193
- Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Shear Resistance of FRP RC Beams: Experimental Study, 235
- System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363
- Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199
- Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485
- Concrete columns**
- Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189
- High-Strength Concrete Columns under Eccentric Load, 1541

SUBJECT INDEX

Concrete, reinforced

Nonlinear Analysis of Reinforced Concrete Beam — Columns with Bond-Slip, 559

Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477

Residual Performance of FRP-Retrofit RC Columns after being Subjected to Cyclic Loading Damage, 219

Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139

Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212

Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297

Stress — Strain Behavior of Large-Scale Circular Columns Confined with FRP Composites, 1450

Concrete construction

A Cautionary Tale, 1995

Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215

Empirical Evaluation of Structural Frame Performance Criteria: Realizing the Potential of Hybrid Concrete Construction, 316

Moving a Reinforced-Concrete Building: Case Study, 299

Concrete durability

Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1328

Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

Penetrating Sealants for Concrete Bridge Decks — Selection Procedure, 156

Concrete masonry

Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478

Multilaminate Macromodel for Concrete Masonry: Formulation and Verification, 1635

Concrete pavements

Accuracy of Ground-Penetrating Radar for Pavement-Layer Thickness Analysis, 1673

Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707

Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302

Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295

Investigation of Heaving at Holloman Air Force Base, New Mexico, 1370

Lessons Learned on Jointed Concrete Pavement Rehabilitation Strategies in Texas, 1690

Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141

Structural Evaluation of Cement Concrete Roads in Mumbai City, 1379

Concrete piles

Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847

Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305

Lateral Response Evaluation of Single Piles Using Inclinator Data, 923

Concrete, post-tensioned

Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576

Concrete, precast

Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390

Concrete, prestressed

Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231

Behavior of Prestressed Concrete Strengthened with Various CFRP Systems Subjected to Fatigue Loading, 238

CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191

Influence of Electrochemical Chloride Extraction on the Performance of Prestressed Concrete under Dynamic Loading Conditions, 1355

Less is More, 2008

Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576

Numerical Model for the Analysis of Unbonded Prestressed Members, 1442

System Identification and Damage Detection of a Prestressed Concrete Beam, 1606

Theoretical Analysis of Transfer Lengths in Pretensioned Prestressed Concrete Members, 545

Transverse Analysis of Strutted Box Girder Bridges, 107

Concrete, reinforced

Application of Polymers to Textile-Reinforced Concrete, 1338

Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982

CFRP Strengthening for Punching Shear of Interior Slab — Column Connections, 230

Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317

Closed-Form Stiffness Matrix for the Four-Node Quadrilateral Element with a Fully Populated Material Stiffness, 581

Critical Review of Deflection Formulas for FRP-RC Members, 206

Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339

Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065

Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220

Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530

Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221

Fatigue Analysis of RC Slabs and Repaired RC Slabs Based on Crack Bridging Degradation Concept, 1532

Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminate Systems, 232

- Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Fuzzy Logic Based Condition Rating of Existing Reinforced Concrete Bridges, 1392
- High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173
- Limitations of FRP Jacking in Confining Old-Type Reinforced Concrete Members in Axial Compression, 190
- Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399
- New Avenue of Achieving Ductility for Reinforced Concrete Members, 1587
- Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531
- Nonlinear Finite-Element Analysis of a FRP-Strengthened Reinforced Concrete Bridge, 106
- Performance in Fire of Small-Scale CFRP Strengthened Concrete Beams, 239
- Posttensioned Anchorage Zone Enhancement with Fiber-Reinforced Concrete, 159
- Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207
- Seismic Fragility Analysis of Structural Systems, 473
- Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610
- Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507
- Strain Rate Model for Dynamic Analysis of Reinforced Concrete Structures, 1576
- Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531
- Tensile Lap Splicing of Bundled CFRP Reinforcing Bars in Concrete, 217
- Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199
- Unloading and Reloading Stress - Strain Model for Confined Concrete, 1449
- Concrete slabs**
- CFRP Strengthening for Punching Shear of Interior Slab - Column Connections, 230
- Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205
- Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749
- Improved Strength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509
- Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634
- Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244
- Concrete structures**
- Behavior and Modeling of Fiber Reinforced Polymer-Confining Concrete, 9
- Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Fracture Mechanics Method for Mode-I Interface Evaluation of FRP Bonded to Concrete Substrates, 1346
- Lightweight Shotcrete Caneer: Use of Viscosity Modifying Admixture and Acetone as Artificial Paste, 1300
- Loss Estimation Analysis of Flat-Slab Structures, 1925
- Moving a Reinforced-Concrete Building: Case Study, 299
- Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531
- Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536
- Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439
- Residual Tensile Properties of GFRP Reinforcing Bars after Loading in Severe Environments, 226
- Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337
- Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542
- Strain Rate Model for Dynamic Analysis of Reinforced Concrete Structures, 1576
- Strength of Two-Dimensional Nodal Zones in Strut - Tie Models, 1613
- Study of Mitigation Strategies for Progressive Collapse of a Reinforced Concrete Commercial Building, 1404
- Concrete technology**
- Effect of Mixture Consistency on Formwork Pressure Exerted by Highly Flowable Concrete, 1353
- Concrete tests**
- Effect of Mixture Consistency on Formwork Pressure Exerted by Highly Flowable Concrete, 1353
- Conduits**
- Dynamics of Air Flow in Sewer Conduit Headspace, 1009
- Cone penetration**
- Normalizing the CPT for Overburden Stress, 812
- Cone penetration tests**
- Analytical Investigation of Friction Sleeve Length Effects on Stratigraphic Interpretation, 13
- Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888
- CPT-Based Probabilistic and Deterministic Assessment of in Situ Seismic Soil Liquefaction Potential, 873
- Electronic Nose - Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Field Evaluation of Crushed Glass - Dredged Material Blends, 831
- First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809
- Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915
- Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272
- Resistance Factors for Use in Shallow Foundation LRFD, 889

SUBJECT INDEX

Conservation

Confidence intervals

Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359

Configuration

Coupled Building Control Considering the Effects of Building/Connector Configuration, 1524

Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012

Multiple Optimum Size/Shape/Topology Designs for Skeletal Structures using a Genetic Algorithm, 1552

Thermomechanical Framework for the Constitutive Modeling of Asphalt Concrete, 15

Confinement

Behavior and Modeling of Fiber Reinforced Polymer-Confined Concrete, 9

Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189

High-Strength Concrete Columns under Eccentric Load, 1541

Limitations of FRP Jacking in Confining Old-Type Reinforced Concrete Members in Axial Compression, 190

Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243

Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72

Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212

Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297

Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991

Unloading and Reloading Stress - Strain Model for Confined Concrete, 1449

Conflict

Conflict Resolution in Construction Disputes using the Graph Model, 391

Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429

Connecticut

Ambient Vibration Monitoring of a Highway Bridge Undergoing a Destructive Test, 163

Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179

Connections

Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398

Characterization of Unistrut Connection Method with Pultruded Fiber-Reinforced Polymer Channels, 1342

Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473

Experimental Stiffness and Seismic Response of Pallet-Type Steel Storage Rack Connectors, 1987

Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119

Experimental Study of Offset HSS Connections, 1511

Experiments of Cold-Formed Steel Connections and Portal Frames, 1498

Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481

Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500

General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909

Improved STrength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509

Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578

Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460

Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461

Pinned Connection Strength and Behavior, 1456

Plastic and Lateral-Torsional Buckling Behavior of Single Cold-Formed Channels Connected Back-to-Back, 1559

Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308

Prediction of Ductile Fracture in Steel Connections using SMCS Criterion, 1455

Reliability of Steel Doweled W60d Connections Designed to ASCE 16-95, 1482

Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474

Seismic Evaluation of Steel Moment Frame Buildings Designed using Different *R*-Values, 1583

Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139

Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1499

Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493

Strengthening of Interior Slab - Column Connections using a Combination of FRP Sheets and Steel Bolts, 229

Virtual Experiments for Welded Structural Steel Connections, 1983

Connections, bolted

Finite - Element Modeling of the Nonlinear Behavior of Bolted-T-Stub Connections, 1530

Optimum Arm Geometry for Ductile Modular Connectors, 1510

Connections, semi-rigid

Experiments of Cold-Formed Steel Connections and Portal Frames, 1498

Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568

Connections, welded

Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557

Conservation

Divergence Form for Bed Slope Source Term in Shallow Water Equations, 997

Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839

Sedimentation Engineering, 2084

System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263

Constitutive models

Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43

Compression Field Modeling of Confined Concrete: Constitutive Models, 1318

Constitutive Model for Rockfill Materials and Determination of Material Constants, 35

DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799

Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23

Elastoplastic Model for the Long-Term Behavior Modeling of Unbound Granular Materials in Flexible Pavements, 40

General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41

Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602

Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797

New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460

Novel Approach to Integration of Numerical Modeling and Field Observations for Deep Excavations, 872

Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19

Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497

Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928

Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542

Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17

Small-Strain Behavior of Granular Soils. I: Model for Cemented and Uncemented Sands and Gravels, 876

Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877

A Stochastic Transformation Field Theory for Heterogeneous Materials, 564

Thermomechanical Framework for the Constitutive Modeling of Asphalt Concrete, 15

Constitutive relations

Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575

Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915

Constraints

New Approach to Mission Design Based on the Fundamental Equations of Motion, 65

Optimal Design with Probabilistic Objective and Constraints, 445

Constructability

Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323

Constructability Practices to Manage Sustainable Building Knowledge, 91

Constructability State of Practice Report, 325

Construction, Inspection, and Maintenance of FRP Deck Panels, 245

Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208

Modeling of Functional Construction Requirements for Constructability Analysis, 418

New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309

Construction

Asphalt Mix Design and Construction: Past, Present, and Future, 2050

Automated People Mover Standards — Part I (ASCE 21-05), 2051

Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971

Construction Delays in Hong Kong Civil Engineering Projects, 352

Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502

Pipelines 2006 — Service to the Owner, 2080

Construction companies

Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237

Exploratory Study of Knowledge Sharing in Contracting Companies: A Sociotechnical Perspective, 380

Firm Performance and Information Technology Utilization in the Construction Industry, 338

Job Performance Evaluation for Construction Companies: An Analytic Network Process Approach, 370

MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects, 332

Relationship between Governance Structure and Financial Performance in Construction, 1239

Construction costs

Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323

Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396

Firm Performance and Information Technology Utilization in the Construction Industry, 338

MACROS: Multiobjective Automated Construction Resource Optimization System, 1252

Predicting Construction Cost using Multiple Regression Techniques, 362

Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733

Construction equipment

Case for Drug Testing of Construction Workers, 1242

Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102

Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262

Innovations in Earthmoving Equipment: New Forms and Their Evolution, 386

Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256

Minimizing Construction Vibration Effects, 11

Soil Penetration Modeling in Microtunneling Projects, 347

SUBJECT INDEX

Construction industry

- Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359
- Systems Analysis of Technical Advancement in Earth-moving Equipment, 385
- Construction industry**
 - Addressing Security in Early Stages of Project Life Cycle, 1259
 - Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320
 - Assessment with 360° Evaluations of Leadership Behavior in Construction Project Managers, 1246
 - Benchmarking Initiatives in the Construction Industry: Lessons Learned and Improvement Opportunities, 1255
 - Case-Based Reasoning Model for International Market Selection, 381
 - Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253
 - Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422
 - Comparative Injury and Fatality Risk Analysis of Building Trades, 342
 - Comparative Study of University Courses on Critical-Path Method Scheduling, 358
 - Comparing Procurement Methods for Design-Build Projects, 311
 - Computer-Aided Site Layout Planning, 302
 - Construction Delivery Systems: A Comparative Analysis of Their Performance within School Districts, 399
 - Contractor Key Competitiveness Indicators: A China Study, 329
 - Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387
 - Crane-Related Fatalities in the Construction Industry, 377
 - Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects, 375
 - Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412
 - Developing a Complexity Measure for Project Schedules, 343
 - Developing Knowledge Landscapes through Project-Based Learning, 1416
 - Development of an Industry Foundation Classes Assembly Viewer, 257
 - Effect of Humor Usage by Engineers at Construction Sites, 1247
 - The Effective Mediator, 1435
 - Emotional Intelligence and Leadership Behavior in Construction Executives, 1251
 - Examining the Business Impact of Owner Commitment to Sustainability, 326
 - Exploring the Bidding Situation for Economically Most Advantageous Tender Projects using a Bidding Game, 390
 - How Relational are Construction Contracts?, 1411
 - Improving Value Generation in the Design Process of Industrial Projects using CAVT, 1243
 - Incorporating Contractual Incentives to Facilitate Relational Contracting, 1412
 - Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250
 - Influences Impacting Leadership Development, 1245
 - Interactions between Business and Financial Strategies of Large Engineering and Construction Firms, 1254
 - Investigation of Critical Success Factors in Construction Project Briefing by Way of Content Analysis, 404
 - "Is That Not Horrific?" — or "You Have Been Warned!" *Burchell v. Bullard* and Implications for English Construction Law, 1428
 - Job Performance Evaluation for Construction Companies: An Analytic Network Process Approach, 370
 - Lean Processes for Sustainable Project Delivery, 395
 - Legal Challenge to a Best-Value Procurement System, 1906
 - Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Cast Study, 1413
 - Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402
 - MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects, 332
 - Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729
 - Motivational Climate of Construction Apprentice, 341
 - Multiproject Planning and Resource Controls for Facility Management, 416
 - Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
 - Ontology-Centered Knowledge Management using Information Retrieval Techniques, 270
 - Owner's Role in Construction Safety: Guidance Model, 305
 - Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310
 - Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393
 - Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081
 - Price and Nonprice Criteria for Contractor Selection, 367
 - Progress of Statutory Adjudication as a Means of Resolving Disputes in Construction in the United Kingdom, 1426
 - Proposed Subcontractor-Based Employee Motivational Model, 303
 - Prototype System for Knowledge Problem Definition, 340
 - Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429
 - Quantitative Measurement of Successful Performance from the Project Manager's Perspective, 415
 - Relative Effectiveness of Project Delivery and Contract Strategies, 288
 - Safety Climate in Construction Industry: A Case Study in Hong Kong, 345
 - Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427
 - Strategic Management of Human Resources in Construction, 1248
 - Strengths, Weaknesses, Opportunities, and Threats for Foreign-Invested Construction Enterprises: A China Study, 384
 - Testing Vickery's Revenue Equivalence Theory in Construction Auctions, 330

- Tracking the Location of Materials on Construction Job Sites, 378
- Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273
- What Does the Construction Industry Value in its Workers?, 392
- Construction management**
- 3D Scan Information Management System for Construction Management, 301
- Adoption of the International Residential Code in a High Natural Hazards Region—An Overview, 85
- Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408
- Application of Dependency Structure Matrix for Activity Sequencing in Concurrent Engineering Projects, 336
- Approaches to Improving the Quality of Construction Drawings from Owner's Perspective, 405
- Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315
- Avoiding and Minimizing Construction Delay Claim Disputes in Relational Contracting, 1421
- Case for Drug Testing of Construction Workers, 1242
- Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786
- CB-Contract: Case-Based Reasoning Approach to Construction Contract Strategy Formulation, 284
- Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290
- Conceptual Planning Process for Electrical Construction, 417
- Conflict Resolution in Construction Disputes using the Graph Model, 391
- Constructability State of Practice Report, 325
- Construction Business Automation System, 296
- Construction Delays and Their Causative Factors in Nigeria, 354
- Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388
- Construction Scheduling and Progress Control using Geographical Information Systems, 285
- Contractor Process Improvement for Enhancing Construction Productivity, 307
- Contractors' Views of the Potential Causes of Inconsistencies between Design and Construction in Saudi Arabia, 1372
- Critical Space Analysis, 335
- Delay Mitigation in the Malaysian Construction Industry, 300
- Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309
- Developing a Resource Supply Chain Planning System for Construction Projects, 327
- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Economic Value of Building Faster, 363
- Effects of Schedule Pressure on Construction Performance, 306
- Emerging Legal Risks for Construction Management Professionals, 1914
- Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929
- Evaluation Model for Information Systems Benefits in Construction Management Processes, 398
- Evaluation of Legal Risks for E-Commerce in Construction, 1438
- Example of a Hybrid Life-Cycle Assessment of Construction Processes, 1158
- Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237
- Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334
- Firm Performance and Information Technology Utilization in the Construction Industry, 338
- Fundamental Analysis of Profitability of Large Engineering and Construction Firms, 1260
- Fundamental Principles of Workforce Management, 297
- Identifying a Design Management Package to Support Concurrent Design in Building Wafer Fabrication Facilities, 348
- Improving Enrollment in the Master of Construction Management Program at Bowling Green State University, 1434
- Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371
- Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410
- Investigation of Critical Success Factors in Construction Project Briefing by Way of Content Analysis, 404
- Lean Construction: From Theory to Implementation, 1256
- Logistic Likelihood Analysis of Mediation Outcomes, 389
- MACROS: Multiobjective Automated Construction Resource Optimization System, 1252
- Management and Construction of the Three Gorges Project, 349
- Minimizing Construction Vibration Effects, 11
- Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
- Modeling of Functional Construction Requirements for Constructability Analysis, 418
- Multi-Agent Framework for General-Purpose Situational Simulations in the Construction Management Domain, 261
- Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365
- Object-Oriented Scheduling for Repetitive Projects with Soft Logics, 291
- Only Dynamics Can Absorb Dynamics, 403
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337
- Particle Swarm Optimization for Preemptive Scheduling under Break and Resource-Constraints, 314
- Particle Swarm Optimization-Supported Simulation for Construction Operations, 413
- Paving the Way to the Vision of Digital Construction: A Strategic Roadmap, 364
- Permutation-Based Particle Swarm Optimization for Resource-Constrained Project Scheduling, 259

SUBJECT INDEX

- Procurement Routes in Public Building and Construction Projects, 356
- Prototype Tool for Mechanical, Electrical, and Plumbing Coordination, 249
- Relationship between Governance Structure and Financial Performance in Construction, 1239
- Scheduling Construction Projects using Evolutionary Algorithm, 374
- Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351
- Sequence Planning for Electrical Construction, 324
- Stimulating Construction Innovation in Singapore through the National System of Innovation, 394
- Structural Insulated Panels: Impact on the Residential Construction Process, 366
- A Study of Styles and Outcomes in Construction Dispute Negotiation, 368
- Success/Failure Factors and Performance Measures of Web-Based Construction Project Management Systems: Professionals' Viewpoint, 295
- Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357
- Total Quality Performance of Design/Build Firms using Quality Function Deployment, 292
- Tracking the Location of Materials on Construction Job Sites, 378
- Use of a WBS Matrix to Improve Interface Management in Projects, 294
- Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361
- Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339
- Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436
- Work Continuity Constraints in Project Scheduling, 289
- Construction materials**
- Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114
- Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102
- Developing a Resource Supply Chain Planning System for Construction Projects, 327
- High-Volume Fly Ash Concrete: Analysis and Application, 1976
- Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Material Flow-Based Facility Layout Analysis of a Manufactured Housing Production Plant, 103
- Moondust and More, 2010
- Moondust and More, 2011
- The Paper Alternative, 2015
- Tracking the Location of Materials on Construction Job Sites, 378
- Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361
- Construction methods**
- Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323
- Prototype Tool for Mechanical, Electrical, and Plumbing Coordination, 249

Contaminants

- Safety Hazard Identification on Construction Projects, 308
- Construction sites**
- Minimizing Construction-Related Hazards in Airport Expansion Projects, 344
- Model for Automated Monitoring of Fall Hazards in Building Construction, 360
- Only Dynamics Can Absorb Dynamics, 403
- Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257
- Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351
- Consulting services**
- Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910
- Operations Management for Engineering Consulting Firms: A Case Study, 1249
- Contact pressure**
- Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60
- Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215
- Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- Contacts**
- New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42
- Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537
- Container transportation**
- Evaluating the Impact of Vessel-Traffic Interference on Container Terminal Capacity, 1862
- Containment**
- Contaminant Transport Model for Unsaturated Soil using Fuzzy Approach, 752
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62
- Contaminants**
- Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626
- Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830
- Impact of Inherent Factors on the Radiolytic Degradation of Biorefractory Contaminants, 755
- Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606
- Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960
- Oxidation of Methyl *tert*-Butyl Ether in Aqueous Solution by an Ozone/UV Process, 743
- Watershed and River Systems Management Program: Overview of Capabilities, 1174

Contamination

Contamination

- Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940
- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825
- Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
- Comparison of Crop Contamination by Microorganisms during Subsurface Drip and Furrow Irrigation, 725
- Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834
- Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations — Modeling Study, 589
- Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
- Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639
- Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733
- Health Risk Assessment for a Contaminated Site: A Case Study, 1964
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Identification of Contaminant Sources in Water Distribution Systems using Simulation — Optimization Method: Case Study, 1827
- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826
- Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705
- Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289
- Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687
- Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294
- Continuous beams**
- Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
- Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460
- Contract management**
- Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415
- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Evaluation of Legal Risks for E-Commerce in Construction, 1438
- How Relational are Construction Contracts?, 1411

2006 ASCE TRANSACTIONS

- Incorporating Contractual Incentives to Facilitate Relational Contracting, 1412
- Management and Construction of the Three Gorges Project, 349
- Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355
- Owner's Role in Construction Safety, 304
- Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436
- Contraction**
- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Scour around Bankline and Setback Abutments in Compound Channels, 933
- Contractors**
- Case for Drug Testing of Construction Workers, 1242
- Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422
- Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411
- Conceptual Planning Process for Electrical Construction, 417
- Contractor Key Competitiveness Indicators: A China Study, 329
- Contractor Process Improvement for Enhancing Construction Productivity, 307
- Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387
- Contractors' Views of the Potential Causes of Inconsistencies between Design and Construction in Saudi Arabia, 1372
- Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
- Price and Nonprice Criteria for Contractor Selection, 367
- Procurement Routes in Public Building and Construction Projects, 356
- Progressive Collapse — An Implosion Contractor's Stock in Trade, 1405
- Sequence Planning for Electrical Construction, 324
- Contracts**
- Alliancing in Australia — No-Litigation Contracts: A Tautology?, 1414
- Avoiding and Minimizing Construction Delay Claim Disputes in Relational Contracting, 1421
- CB-Contract: Case-Based Reasoning Approach to Construction Contract Strategy Formulation, 284
- Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422
- Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328
- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Exploratory Study of Knowledge Sharing in Contracting Companies: A Sociotechnical Perspective, 380
- How Relational are Construction Contracts?, 1411
- Incorporating Contractual Incentives to Facilitate Relational Contracting, 1412
- Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Cast Study, 1413

SUBJECT INDEX

Corrosion

- Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355
- Owner's Role in Construction Safety: Guidance Model, 305
- Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337
- Physics of Liquefaction Phenomena around Marine Structures, 1877
- Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081
- Procurement Routes in Public Building and Construction Projects, 356
- Public Clients' Best Value Perspectives of Public-Private Partnerships in Infrastructure Development, 298
- Relative Effectiveness of Project Delivery and Contract Strategies, 288
- Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427
- Soil Penetration Modeling in Microtunneling Projects, 347
- Testing Vickery's Revenue Equivalence Theory in Construction Auctions, 330
- Control**
- Semiactive Fuzzy Control of the Seismic Response of Building Frames, 1519
- Control methods**
- Implementation of a Feasible Control Design Process Incorporating Robustness Criteria for Wind-Excited High-Rise Buildings, 1448
- Model for Automated Monitoring of Fall Hazards in Building Construction, 360
- New Approach to Mission Design Based on the Fundamental Equations of Motion, 65
- Control systems**
- Development of Real-Time Safety Control System for Urban Gas Supply Network, 801
- Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66
- Optimal H_∞ Output Feedback Control Systems with Time Delay, 549
- Sampled Data Feedback-Feedforward Control of Structures with Time Delays, 1549
- Systems Analysis of Technical Advancement in Earthmoving Equipment, 385
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205
- Conveyors**
- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- Cooling**
- Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428
- Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429
- New Static Sunshade Design for Energy-Efficient Buildings, 422
- Cooling towers**
- Sustainability and Economics of the Advanced High-Temperature Reactor, 432
- Copper**
- Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Treatment of Acid Rock Drainage in a Meromictic Mine Pit Lake, 640
- Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707
- Core walls**
- Design of a Rigid Cutoff Wall, 34
- Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892
- Slug Test Analysis in Vertical Cutoff Walls. I: Analysis Methods, 817
- Slug Test Analysis in Vertical Cutoff Walls. II: Applications, 818
- Stability of Long Trenches in Sand Supported by Bentonite-Water Slurry, 4
- Corners**
- Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489
- Corporations**
- Boardrooms of Energy Firms in the Post-Enron Era, 424
- Correlation**
- Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626
- Multivariate Simulation and Multimodal Dependence Modeling of Vehicle Axle Weights with Copulas, 1767
- Seismic Fragility Analysis of Structural Systems, 473
- Stochastic Point Rainfall Modeling for Correlated Rain Cell Intensity and Duration, 1073
- Corrosion**
- CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191
- Change of Weld Residual Stresses due to Loss of Material, 1630
- Dissolution of Wollastonite in a Packed Bed Contact, 634
- Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202
- Influence of Electrochemical Chloride Extraction on the Performance of Prestressed Concrete under Dynamic Loading Conditions, 1355
- In-Service Durability Performance of Water Tanks, 1377
- Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576
- Performance of a Penetrating Corrosion Inhibitor in Concrete Affected by Carbonation-Induced Corrosion, 1359
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152

Corrugating

Behavior of Corrugated Web I-Girders under In-Plane Loads, 1517

Fatigue Life of Girders with Trapezoidal Corrugated Webs, 1543

Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575

Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574

Torsional Design of Hybrid Concrete Box Girders, 136

Cost analysis

Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742

Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668

Cost control

Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388

Design Considerations for Lysimeters Used to Evaluate Alternative Earthen Final Covers, 919

Examining the Business Impact of Owner Commitment to Sustainability, 326

Fundamental Principles of Workforce Management, 297

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Modeling Cost Escalation in Large Infrastructure Projects, 373

Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313

Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155

Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393

Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429

Set Sprinkler Irrigation and Its Cost, 1214

Short- and Long-Term Effects of Element Costs and Failure Costs in *Pontis*, 166

Cost estimates

Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396

Costs

Alternative Decision Making in Water Distribution Network with NSGA-II, 1813

Forecasting Project Status by using Fuzzy Logic, 406

Multi-Objective Trade-Offs between Cost and Reliability in the Replacement of Water Mains, 1809

Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619

Probability-Based Bridge Network Performance Evaluation, 167

Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610

Coupled walls

Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538

Crack under Pressure, 2013

Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539

Coupling

Coupled Building Control Considering the Effects of Building/Connector Configuration, 1524

Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826

Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501

Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502

Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511

DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892

Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428

Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206

Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538

Free Transverse and Lateral Vibration of Beams with Torsional Coupling, 59

Hydraulic Damping of Saturated Poroelastic Soils During Steady-State Vibration, 523

Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539

Cracking

Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971

Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids, 435

Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266

Damage Assessment in Beams using Inverse Method, 469

Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60

Determining the Tensile Stress-Crack Opening Curve of Concrete by Inverse Analysis, 449

Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325

Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492

Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749

Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860

Failure Investigation of a Foamed-Asphalt Highway Project, 1140

Fracture Analysis of Shear Deformable Bi-Material Interface, 466

Girders Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121

High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173

SUBJECT INDEX

Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178

Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122

Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634

Lateral Response Evaluation of Single Piles Using Inclinometer Data, 923

Measuring System for Cracks in Concrete using Multitemporal Images, 1651

Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861

Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536

Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192

Performance of Structures before and during Failure, 1972

Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327

Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437

Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207

Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475

Strain Rate Model for Dynamic Analysis of Reinforced Concrete Structures, 1576

Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783

Structural Monitoring and Integrity Assessment of Medieval Towers, 1605

Study on the Average Fracture Energy for Crack Propagation in Concrete, 1357

Use of an Infrared Joint Heater to Improve Longitudinal Joint Performance in Hot Mix Asphalt Pavements, 1380

Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627

Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307

Cranes

Crane-Related Fatalities in the Construction Industry, 377

Creep

Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333

Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266

Creep Buckling of Shallow Parabolic Concrete Arches, 1601

Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518

Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364

Factors Affecting the Creep Behavior of Grouted Sand, 823

Cross sections

Long-Term Behavior of Precast Segmental Cantilever Bridges, 137

Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440

Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441

Performance of Structures before and during Failure, 1972

Preflex Beams: A Method of Calculation of Creep and Shrinkage Effects, 108

Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219

Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629

Critical flow

Hydraulic Performance Curves for Highway Culverts, 978

Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221

Optimal Design of Open Channel Section Incorporating Critical Flow Condition, 1223

Critical load

Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419

Axisymmetric Nonlinear Stability of a Shallow Conical Shell with a Spherical Cap of Arbitrary Variable Shell Thickness, 555

Critical path method

Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315

Critical Space Analysis, 335

Work Continuity Constraints in Project Scheduling, 289

Crops

Comparison of Crop Contamination by Microorganisms during Subsurface Drip and Furrow Irrigation, 725

Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227

Estimation of Evapotranspiration of Different-Sized Navel-Orange Tree Orchards using Energy Balance, 1164

Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165

Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178

Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179

Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201

Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202

Cross sections

Broad-Crested Weirs with Rectangular Compound Cross Sections, 1193

Complex Edge Stiffeners for Thin-Walled Members, 1459

Cross sections

Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494

Crude oil

Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591

Culverts

Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Hydraulic Performance Curves for Highway Culverts, 978

Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974

Currents

Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890

Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897

Control of Scour at Vertical Circular Piles under Waves and Current, 959

Entrainment Properties of Plane Surface-Jets in Shallow Current, 967

Estuarine and Coastal Modeling — Proceedings of the Ninth International Conference, 2064

Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856

Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457

Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859

Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541

Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902

Curricula

Comparative Study of University Courses on Critical-Path Method Scheduling, 358

Determining the Content of the First Course in Transportation Engineering, 1423

Curtain walls

Curtain Wall Designs for Wind and Blast: Three Case Studies, 99

Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86

Curvature

Critical Review of Deflection Formulas for FRP-RC Members, 206

Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60

Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120

Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207

Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973

Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573

2006 ASCE TRANSACTIONS

Symmetric Catenary of a Uniform Elastic Cable of Neo-Hookean Material, 509

Curve fitting

Slug Test Analysis in Vertical Cutoff Walls. I: Analysis Methods, 817

Curved beams

Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112

Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113

Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494

Cyclic loads

Behavior of Beam-Column Joints made of Sustainable Concrete under Cyclic Loading, 1336

Bond Behavior of Near-Surface Mounted CFRP Laminated Strips under Monotonic and Cyclic Loading, 218

CPT-Based Probabilistic and Deterministic Assessment of in Situ Seismic Soil Liquefaction Potential, 873

Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611

Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529

Experimental Behavior of Stiffened and Unstiffened End-Plate Connections under Cyclic Loading, 1572

Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557

Fracture Mechanics Based Model for Joints under Cyclic Loading, 556

Passive Earth Pressure Mobilization during Cyclic Loading, 884

Physics of Liquefaction Phenomena around Marine Structures, 1877

Racking Performance of Tall Unblocked Shear Walls, 1452

Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219

A Robust Macroelement Model for Soil — Pile Interaction under Cyclic Loads, 898

Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525

Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542

Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599

Stability Requirements for Beams in Seismic Steel Moment Frames, 1570

Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10

Testing Protocol for Short Links in Eccentrically Braced Frames, 1554

Testing Protocol for Short Links in Eccentrically Braced Frames, 1555

Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111

Cyclic strength

Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885

SUBJECT INDEX

Damage

Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169

Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924

Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

Liquefaction Susceptibility Criteria for Silts and Clays, 908

Cyclic tests

Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives, 1497

Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579

How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790

Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334

Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578

Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337

Structural Behavior of FRP Composite Bridge Deck Panels, 141

Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917

Cylinders

Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897

Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202

Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886

Fluid-Soil-Structure Interaction in Liquefaction around a Cyclically Moving Cylinder, 1882

Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468

Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864

Similitude of Large-Scale Turbulence in Experiments on Local Scour at Cylinders, 934

Cylindrical shells

Design Analysis for Buckling of Tanks and Silos, 1443

Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66

Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63

Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermomechanical Loads, 548

Shear Response of Concrete-Filled FRP Composite, 1533

Thermomechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels, 448

Vibration of Open Cylindrical Shells with Stepped Thickness Variations, 514

Czech Republic

Less is More, 2008

Dam design

Earth Dam with Toe Drain on an Impervious Base, 50

Dam failure

Dam Break Wave of Thixotropic Fluid, 960

Dam-Break Wave-Front Celerity, 938

Dam safety

Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860

Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861

Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5

Streaming Solutions, 1997

Damage

Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296

Bayesian Network for E/M Impedance-Based Damage Identification, 267

Bimodal Alongwind Fatigue of Structures, 1528

Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422

Condensed Model Identification and Recovery for Structural Damage Assessment, 1638

Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381

Damage Identification Based on Dead Load Redistribution: Methodology, 1562

Damage Identification Based on Dead Load Redistribution: Effect of Measurement Error, 1563

Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483

Downstream Economic Benefits of Conservation Development, 1804

Effect of Heavy Multiple Axle Trucks on Flexible Pavement Damage using In-Service Pavement Performance Data, 1747

Effects of Strain and Damage on Strain-Sensing Ability of Carbon Fiber Cement, 1299

Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23

Flexibility-Based Damage Localization from Stochastic Realization Results, 499

HAZUS Earthquake Loss Estimation Methods, 1927

HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928

HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929

HAZUS-MH Hurricane Model Methodology. I: Hurricane Hazard, Terrain, and Wind Load Modeling, 1930

HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931

Hurricane Katrina: Performance of Transportation Systems, 2074

Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469

Improved Image Analysis for Evaluating Concrete Damage, 265

Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579

In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175

Legal Consequences of Damages to Underground Facilities by Horizontal Directional Drilling, 1437

Microvoid Damage Model with Material Dilation for Ductile Fracture, 546

Damage

- Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533
- Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
- Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531
- Price of Permits: Measuring the Economic Impacts of Wetland Development on Flood Damages in Florida, 1934
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Regeneration, 2029
- Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219
- Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262
- Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367
- Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547
- System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148
- Toward a Physical Damage Variable for Concrete, 512
- Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111
- Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607
- Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307
- Damage assessment**
- Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520
- Catastrophe-Induced Destruction and Reconstruction, 1924
- Cross-Modal Strain Energy Method for Estimating Damage Severity, 477
- Damage Assessment in Beams using Inverse Method, 469
- Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172
- Development of Real-Time Safety Control System for Urban Gas Supply Network, 801
- Lessons Learned from an Emergency Bridge Replacement Project, 321
- More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604
- New Three-Dimensional Damage Index for RC Buildings with Planar Irregularities, 1585
- Structural Damage Detection via Modal Data with Genetic Algorithms, 1586
- Damping**
- Application of Internally Damped Shearbeam Model to Analysis of Buildings under Earthquakes: Robust Procedure for Quick Evaluation of Seismic Performance, 1550
- Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501

2006 ASCE TRANSACTIONS

- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Damping in Shear Beam Structures and Estimation of Drift Response, 522
- Degradation of Sands due to Combined Sinusoidal Loading, 930
- Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475
- Dynamic Stability of Ferromagnetic Beam-Plates with Magnetoelastic Interaction and Magnetic Damping in Transverse Magnetic Fields, 476
- Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529
- Experimental Verification of Smart Cable Damping, 462
- Hydraulic Damping of Saturated Poroelastic Soils During Steady-State Vibration, 523
- Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440
- Hysteretic Model of Stiffened Shear Panel Dampers, 1486
- Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275
- Modified Sturm Sequence Property for Damped Systems, 515
- ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800
- Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
- Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439
- Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Range of Validity of the Transient Damping Leakage Detection Method, 1025
- Relating Damping to Soil Permeability, 28
- Response of Nonstructural Components in Structures with Damping Systems, 1547
- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Semiautomatic Fuzzy Control of the Seismic Response of Building Frames, 1519
- Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824
- Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588
- Viscous Effect on the Roll Motion of a Rectangular Structure, 454
- Dams**
- Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045
- Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849
- Earthquake Hydrodynamic Pressure on Dams, 1046

SUBJECT INDEX

Data processing

Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038

Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068

Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537

Dams, arch

Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Dams, concrete

Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926

Dams, earth

Earth Dam with Toe Drain on an Impervious Base, 50

Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890

Evaluation of the Movements of the Dam Embankments by Means of Geodetic and Geotechnical Methods, 1645

Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860

Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861

Dams, embankment

Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929

Evaluation of the Movements of the Dam Embankments by Means of Geodetic and Geotechnical Methods, 1645

Dams, gravity

Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926

Darcy's law

General Validity of COnductivity Means in Unsaturated Flow Models, 1125

Data analysis

Bat Echolocation Interfering with Ultrasonic Sensors, 1069

Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172

Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990

Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642

Effect of Heavy Multiple Axle Trucks on Flexible Pavement Damage using In-Service Pavement Performance Data, 1747

Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821

Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120

Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425

Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410

Knowledge Discovery in a Facility Condition Assessment Database using Text Clustering, 1142

Laboratory Simulation of Field Sampling: Comparison with Ideal Sampling and Field Data, 810

Lateral Response Evaluation of Single Piles Using Inclinator Data, 923

Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655

Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843

Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365

Optimal Instantaneous Unit Hydrograph from Multisensor Data, 1198

Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272

Sampled Data Feedback-Feedforward Control of Structures with Time Delays, 1549

Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359

System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263

Type II Settling Data Analysis, 598

Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161

Data collection

Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724

Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735

Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593

Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582

Improved AADT Estimation by Combining Information in Image- and Ground-Based Traffic Data, 1719

Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410

Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256

Model for Automated Monitoring of Fall Hazards in Building Construction, 360

Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401

Moving a Reinforced-Concrete Building: Case Study, 299

Stochastic Streamflow Simulation using SAMS-2003, 1177

Traffic Data Collection Requirements for Reliability in Pavement Design, 1688

Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361

Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281

Data communication

Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275

Data processing

3D Calculation of Stopping-Sight Distance from GPS Data, 1739

Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256

Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279

Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Probability Density Functions in the Analysis of Hydraulic Conductivity Data, 1116

Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275

Databases

Database-Assisted Design of Low-Rise Buildings: Aerodynamic Considerations for a Practical Interpolation Scheme, 1529

Downstream Hydraulic Geometry of Alluvial Channels, 1067

Knowledge Discovery in a Facility Condition Assessment Database using Text Clustering, 1142

MACROS: Multiobjective Automated Construction Resource Optimization System, 1252

Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365

Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213

Datum

Coordinate Transformation between Two Geodetic Datums of Taiwan by Least-Squares Collocation, 1649

Stepwise Parameter Estimations in a Time-Variant Similarity Transformation, 1660

Dead loads

Damage Identification Based on Dead Load Redistribution: Methodology, 1562

Damage Identification Based on Dead Load Redistribution: Effect of Measurement Error, 1563

Debris

Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931

Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943

Dam Break Wave of Thixotropic Fluid, 960

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Large Wind Missile Impact Capacity of Residential and Light Commercial Buildings, 1990

Movement of Finite Amplitude Sediment Accumulations, 1003

Three-Dimensional Topography of Debris-Flow Fan, 962

Decision making

Considering Location, Compliance, and Storage in Decisions on Brackish Water Resource Development, 1853

Construction IT Decision Making Using Multiattribute Utility Theory for Use in a Laboratory Information Management System, 414

Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387

Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412

Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396

Entropy Application to Improve Construction Finance Decisions, 397

Evaluation of Drinking Water Treatment Technology: An Entropy-Based Fuzzy Application, 728

Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350

Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639

Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081

Relative Effectiveness of Project Delivery and Contract Strategies, 288

Terrorism Risks and Blast Damage to Built Infrastructure, 1933

Decision support systems

CB-Contract: Case-Based Reasoning Approach to Construction Contract Strategy Formulation, 284

Computer-Aided Site Layout Planning, 302

Conflict Resolution in Construction Disputes using the Graph Model, 391

Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396

Holistic Approach for Assessing the Vulnerability of Buried Pipelines to Earthquake Loads, 1923

Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229

Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199

Watershed and River Systems Management Program: Overview of Capabilities, 1174

Decks

Case Study of a High-Performance Concrete Bridge in Tennessee, 1992

Decommissioning

The Gulf of Mexico Decommissioning Market, 369

Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313

Decomposition

Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751

Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482

Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533

Deep water

Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539

Defects

Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422

Latent Building Defects: Causes and Design Strategies to Prevent Them, 1386

Deflection

Analytical Solution for Piles Supporting Combined Lateral Loads, 899

Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903

Case Study of a High-Performance Concrete Bridge in Tennessee, 1992

Critical Review of Deflection Formulas for FRP-RC Members, 206

Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654

Deflection Protection, 2032

SUBJECT INDEX

Delivery

Determination of Required Falling Weight
Deflectometer Testing Frequency for Pavement
Structural Evaluation at the Network Level, 1671

Energy Capacity Criterion for the Design of Columns
against Collapse, 493

Evaluation of a GPS-Based Approach for Rapid and
Precise Determination of Geodetic/Astronomical
Azimuth, 1661

Girder Differential Deflection and Distortion-Induced
Fatigue in Skewed Steel Bridges, 121

Lateral Distribution of Mixed Traffic on Two-Lane
Roads, 1728

Long-Term Deflections of Reinforced Concrete Beams
Externally Bonded with FRP System, 236

Modeling of Prestressed Concrete-Filled Circular Com-
posite Tubes Subjected to Bending and Axial Loads,
1483

Moment Capacities and Deflection Limits of PFRP
Sheet Piles, 241

Nine-Node Resultant-Stress Shell Element for Free
Vibration and Large Deflection of Composite Lam-
inates, 69

On the Free Vibrations of Variable-Arc-Length Beams:
Analytical and Experimental, 1517

Pile Behavior due to Excavation-Induced Soil Move-
ment in Clay. I: Stable Wall, 780

Pile Behavior Due to Excavation-Induced Soil Move-
ment in Clay. II: Collapsed Wall, 781

Reliability Analysis of Deflection of Buried Flexible
Pipes, 1754

Response Prediction of RC Beams Externally Bonded
with Steel-Reinforced Polymers, 207

Structural Evaluation of Cement Concrete Roads in
Mumbai City, 1379

Structural Performance Monitoring of an Unstabilized
Fly Ash-Based Road Subbase, 1769

Deformation

Analysis of Flexible Pavement Response and Perform-
ance Isotropic and Anisotropic Material Prop-
erties, 1698

Assessing Permanent Deformation Resistance of High
Modulus Asphalt Mixtures, 1704

Continuous Interface Elements Subject to Large Shear
Deformations, 21

Coupled Heat-Deformation-Flow Analysis for Clayey
Soil, 826

Design and Performance of Stone Mastic Asphalt,
1768

Determination of Point Displacements in the Geodetic
Network, 1648

Effect of Coarse Aggregate Morphology on Permanent
Deformation Behavior of Hot Mix Asphalt, 1726

Estimating Seismic Demands for Isolation Bearings
with Building Overturning Effects, 1548

Evaluation of the Movements of the Dam Embank-
ments by Means of Geodetic and Geotechnical
Methods, 1645

Finite - Element Modeling of the Nonlinear Behavior
of Bolted-T-Stub Connections, 1530

Hysteretic Model of Stiffened Shear Panel Dampers,
1486

Identification and Modeling of Permanent Deforma-
tions of Asphalt Concrete, 458

Microscopic Evaluation of Strain Distribution in Gran-
ular Materials during Shear, 785

Mitigation of Soil Movements from Pile Driving, 1777

New Avenue of Achieving Ductility for Reinforced
Concrete Members, 1587

Pinned Connection Strength and Behavior, 1456

Predictive Model for the Water Retention Curve of
Deformable Clayey Soils, 881

Seasonal Deterioration of Unsurfaced Roads, 857

Spatial Stability of Shear Deformable Nonsymmetric
Thin-Walled Curved Beams: A Centroid-Shear
Center Formulation, 573

Stress Path Testing of Realistically Cured Lime and
Lime/Cement Stabilized Clay, 1288

Degradation

Degradation of a Granular Base under a Flexible Pav-
ment: DEM Simulation, 56

Degradation of Sands due to Combined Sinusoidal
Loading, 930

Disturbance Caused by Bed Sills on the Slopes of
Steep Streams, 1052

Effects of Ground Motion Parameters and Cyclic Deg-
radation Behavior on Collapse Response of Steel
Moment-Resisting Frames, 1592

Fate and Modeling of Pentachlorophenol Degradation
in a Laboratory-Scale Anaerobic Sludge Digester,
689

Fatigue Analysis of RC Slabs and Repaired RC Slabs
Based on Crack Bridging Degradation Concept,
1532

Impact of Inherent Factors on the Radiolytic Degrad-
ation of Biorefractory Contaminants, 755

Oxidative and Reductive Degradation of Mixed Con-
taminants by Bifunctional Aluminum, 1944

Treating Soil PCP at Optimal Conditions using Heme
and Peroxide, 678

Deicing

Calibrated Models of Deicing Agent Solids, Pavement
Texture, and Specific Conductivity of Highway
Runoff, 761

Delay time

Avoiding and Minimizing Construction Delay Claim
Disputes in Relational Contracting, 1421

Compaction Delay Effects on Properties of Lime-
Treated Soil, 1287

Construction Delays and Their Causative Factors in
Nigeria, 354

Construction Delays in Hong Kong Civil Engineering
Projects, 352

Delay between Sensing and Response in Water Con-
tamination Events, 1145

Delay Mitigation in the Malaysian Construction Indus-
try, 300

Influence of Pedestrians' Entry Process on Pedestrian
Delays at Signal-Controlled Crosswalks, 1757

Optimal H_{∞} Output Feedback Control Systems with
Time Delay, 549

Time-Delayed Positive Velocity Feedback Control
Design for Active Control of Structures, 503

Delivery

Comparing Procurement Methods for Design-Build
Projects, 311

Computerized System for Efficient Delivery of Infra-
structure Maintenance/Repair Programs, 290

Construction Delivery Systems: A Comparative Anal-
ysis of Their Performance within School Districts,
399

Delivery

Improving Enrollment in the Master of Construction Management Program at Bowling Green State University, 1434

Lean Processes for Sustainable Project Delivery, 395

Relative Effectiveness of Project Delivery and Contract Strategies, 288

Denitrification

Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669

Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720

Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635

Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709

Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732

Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691

Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilters, 727

Denmark

Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605

Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. I: Field Study of Tracer Movement, 1966

Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967

Density

Density and Activity Characterization of Activated Sludge Flocs, 724

Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974

Unit Weight of Municipal Solid Waste, 893

Density currents

Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754

Desalination

Modeling Water Movement and Flux from Membrane Evaporation Systems for Wastewater Microirrigation, 714

Deserts

Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960

Value of Instream Recreation in the Sonoran Desert, 1806

Design

Addressing Security in Early Stages of Project Life Cycle, 1259

2006 ASCE TRANSACTIONS

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231

Asphalt Mix Design and Construction: Past, Present, and Future, 2050

Automated People Mover Standards — Part 1 (ASCE 21-05), 2051

Behavior of Complex Hat Shapes used as Truss Chord Members, 1501

Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189

Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127

Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222

Constructability State of Practice Report, 325

Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchors and Ground Anchors, 29

Design Considerations for Lysimeters Used to Evaluate Alternative Earthen Final Covers, 919

Design Errors: Inefficiency or Carelessness of Designer?, 1383

Design of Architectural Glazing to Resist Earthquakes, 96

Design of Circular Base Plates, 1970

Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458

Design of Steel Transmission Pole Structures (ASCE/SEI 48-05), 2058

Dissolution of Wollastonite in a Packed Bed Contactor, 634

Energy Capacity Criterion for the Design of Columns against Collapse, 493

Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481

Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860

Identifying a Design Management Package to Support Concurrent Design in Building Water Fabrication Facilities, 348

Improving Value Generation in the Design Process of Industrial Projects using CAVT, 1243

Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572

Optimal Design of a Compacted Soil Liner Containing SORptive Amendments, 686

Pinned Connection Strength and Behavior, 1456

Procurement Routes in Public Building and Construction Projects, 356

Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407

Prototype Time-Space Diary Design and Administration for a Developing Country, 1715

Real Options by Spreadsheet: Parking Garage Case Example, 1147

SUBJECT INDEX

- Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439
- Reliability of Steel Doweled Wood Connections Designed to ASCE 16-95, 1482
- Reliability-Based Design of Utility Pole Structures, 2082
- Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531
- Transverse Pavement Grooving against Hydroplaning. II: Design, 1710
- Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213
- Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254
- Design criteria**
- Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496
- Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737
- Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425
- New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100
- Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822
- Design standards**
- Design of Window Glass for Lateral Pressures, 95
- Design storms**
- Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Design/build**
- Comparing Procurement Methods for Design-Build Projects, 311
- Constructability Practices to Manage Sustainable Building Knowledge, 91
- Constructability State of Practice Report, 325
- Legal Challenge to a Best-Value Procurement System, 1906
- Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081
- Total Quality Performance of Design/Build Firms using Quality Function Deployment, 292
- Desorption**
- Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679
- Detention basins**
- Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717
- Detention reservoirs**
- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Deterioration**
- Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678
- Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802
- Estimation of Pavement Performance Deterioration using Bayesian Approach, 1144

Diffraction

- In-Service Durability Performance of Water Tanks, 1377
- Iterative Linear Approach for Nonlinear Nonhomogeneous Stochastic Pavement Management Models, 1689
- Markov-Based Optimization Model for Building Facilities Management, 407
- Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576
- Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620
- Performance Prediction of Bridge Deck Systems using Markov Chains, 1378
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Repeated Measurement Data Analysis in Pavement Deterioration Modeling, 1153
- Seasonal Deterioration of Unsurfaced Roads, 857
- Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141
- Developing countries**
- A Cautionary Tale, 1995
- Double-Pass Photovoltaic-Thermal Solar Collector, 434
- Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819
- Neural Networks for Estimating the Productivity of Concreting Activities, 353
- Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601
- Prototype Time-Space Diary Design and Administration for a Developing Country, 1715
- Simplified Kernel Method for Flow to Large Diameter Wells, 1173
- Dewatering**
- Dyed Microspheres for Quantification of UV Dose Distributions: Photochemical Reactor Characterization by Lagrangian Actinometry, 742
- Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906
- Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289
- Diaphragm wall**
- Innovative Central Opening Strut System for Foundation Excavation, 293
- Diesel fuels**
- Application of Fenton's Reagent to Remediate Diesel Contaminated Soils, 1941
- Systems Analysis of Technical Advancement in Earthmoving Equipment, 385
- Differential settlement**
- Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1975
- Diffraction**
- Use of Fresnel Enantiomorphic Diffraction in Surveying Laser Methods, 1650

Diffusion

Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657

High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690

Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676

Numerical Modeling and Analysis of Solute Velocity and Macrodispersion for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104

Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192

Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510

Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298

Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521

Removal of Toluene Vapor with Dispersed Activated Carbon, 622

Steady-State Diffusion — Advection by Exponential Finite Elements, 55

Diffusivity

Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100

Digestion

Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670

Digital techniques

Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258

Constriction Size of Geotextile Filters, 2

Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530

Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646

Paving the Way to the Vision of Digital Construction: A Strategic Roadmap, 364

Dikes

Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488

Dilatancy

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582

Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915

Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914

Dilution

Critical Analysis of Computing Equations for Determination of BOD by Dilution Methods, 651

Marine Wastewater Discharges from Multipoint Diffusers. III: Stratified Stationary Water, 971

Marine Wastewater Discharges from Multipoint Diffusers. IV: Stratified Flowing Water, 972

Dimensional analysis

Dimensionless Stage – Discharge Relationship in Radial Gates, 1184

Hydrodynamics of Mesotidal Estuary in Winter, 185

Dioxin

Dioxin in Storm-Water Runoff in Houston, Texas, 770

Disaster recovery

Disaster Recovery System Model with E-Government Case Study, 1937

Disaster relief

Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247

Disasters

Hedgehog and Fox Strategies for Reducing Risks in Infrastructure Systems, 1935

Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163

Three-Dimensional Topography of Debris-Flow Fan, 962

Discharge measurement

Broad-Crested Weirs with Rectangular Compound Cross Sections, 1193

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Dimensionless Stage – Discharge Relationship in Radial Gates, 1184

Electromagnetic Wave Surface Velocimetry, 946

Historic Discharge Measurements in Three Rhine Branches, 945

New Method for Estimation of Discharge, 1035

Discontinuities

New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42

Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437

Discrete elements

Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56

DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892

Input Parameters of Discrete Element Methods, 506

Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52

Rotation Response of a Rigid Body under Seismic Excitation, 472

Shear Banding in Sandstone: Physical and Numerical Studies, 31

Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32

Discrimination

Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250

Disinfection

Comparative Inactivation of *Bacillus Subtilis* Spores and MS-2 Coliphage in a UV Reactor: Implications for Validation, 760

SUBJECT INDEX

- Disinfection By-Product Formation during Long-Term Water Storage in Alaska, 188
- Evaluation of Drinking Water Treatment Technology: An Entropy-Based Fuzzy Application, 728
- Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666
- Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667
- Iron Oxide Enhanced Chlorine Decay and Disinfection By-Product Formation, 767
- MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584
- Polychromatic UV Fluence Measurement using Chemical Actinometry, Biodosimetry, and Mathematical Techniques, 693
- Dispersion**
- Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444
- Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940
- Comparison of SF_6 and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774
- Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033
- Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079
- Displacement**
- Antiplane (SH) Waves Diffraction by a Semicircular Cylindrical Hill Revisited: An Improved Analytic Wave Series Solution, 550
- Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18
- Behavior of a Fiber-Reinforced Bentonite at Large Shear Displacements, 918
- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971
- Damage Assessment in Beams using Inverse Method, 469
- Determination of Point Displacements in the Geodetic Network, 1648
- Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526
- Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Evaluation of the Movements of the Dam Embankments by Means of Geodetic and Geotechnical Methods, 1645
- Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561
- Ground Movement Predictions for Braced Excavations in Undrained Clay, 821
- Mitigation of Soil Movements from Pile Driving, 1977

Distribution functions

- Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536
- Observations on the Reliability of Alternative Multiple-Mode Pushover Analysis Methods, 1485
- Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437
- Robustness Analysis of Two-Dimensional Networks, 1664
- Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607
- Dispute resolution**
- Avoiding and Minimizing Construction Delay Claim Disputes in Relational Contracting, 1421
- Conflict Resolution in Construction Disputes using the Graph Model, 391
- The Effective Mediator, 1435
- Logistic Likelihood Analysis of Mediation Outcomes, 389
- MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects, 332
- Preventing Disputes with Empathy, 1430
- Progress of Statutory Adjudication as a Means of Resolving Disputes in Construction in the United Kingdom, 1426
- Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429
- A Study of Styles and Outcomes in Construction Dispute Negotiation, 368
- Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436
- Dissolved organic carbon**
- EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674
- Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600
- Dissolved oxygen**
- Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090
- Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723
- Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644
- Jackson River Modeling: 50-Year Perspective, 719
- Long-Term Dynamic Modeling Approach to Quantifying Attached Algal Growth and Associated Impacts on Dissolved Oxygen in the Lower Truckee River, Nevada, 739
- Multiobjective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814
- Response of a Tropical Reservoir to Bubbler Destratification, 682
- Distribution functions**
- Optimization of Investments in Natural Gas Distribution Networks, 425
- Shear Live-Load Distribution Factors for I-Girder Bridges, 124

Ditches

Ditches

Seepage from a Rectangular Ditch to the Groundwater Table, 1192

Documentation

In-Service Durability Performance of Water Tanks, 1377

Dolomite

Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709

Domes, structural

Membrane Analysis and Minimum Weight Design of Submerged Spherical Domes, 1463

Shape Selection for Lattice Structures, 1608

Drafting

Approaches to Improving the Quality of Construction Drawings from Owner's Perspective, 405

Drag

Drag Force on Single Piles in Clay Subjected to Surge Loading, 20

Probability Density Function of Instantaneous Drag Forces and Shear Stresses on a Bed, 1050

Drainage

Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127

Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169

Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131

Considerations from the Design of Intercepting Drainage for Collecting Water from Seep Areas, 1231

Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57

Downstream Economic Benefits of Conservation Development, 1804

Earth Dam with Toe Drain on an Impervious Base, 50

Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182

Field Study to Investigate WIDE Technology for TCE Extraction, 880

Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Optimal Layout of Sewer Systems: A Deterministic versus a Stochastic Model, 1018

Physics of Liquefaction Phenomena around Marine Structures, 1877

Rational Approach for Base Type Selection, 1746

Seepage to a Drainage Ditch and Optimization of Its Shape, 1234

Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090

Stress-Controlled Filtration with Compressible Particles, 858

Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123

Vertical Drain Consolidation with Parabolic Distribution of Permeability in Smear Zone, 866

2006 ASCE TRANSACTIONS

Drainage systems

Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317

Drawdown

Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Simplified Kernel Method for Flow to Large Diameter Wells, 1173

Dredge spoil

Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294

Drift

Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609

Damping in Shear Beam Structures and Estimation of Drift Response, 522

Generalized Interstory Drift Spectrum, 1523

More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604

Drilled pier foundations

Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611

Drilled shafts

Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820

Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822

A Robust Macroelement Model for Soil—Pile Interaction under Cyclic Loads, 898

Drilling

Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48

Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Legal Consequences of Damages to Underground Facilities by Horizontal Directional Drilling, 1437

Quantifying the Effect of Rock Strength Criteria on Minimum Drilling Mud Weight Prediction using Polyaxial Rock Strength Test Data, 38

Driven piles

Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814

Quality Control Method for Pile Driving, 879

Driver behavior

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700

Relationship between Speed, Lateral Placement, and Drivers' Eye Movement at Two-Lane Rural Highways, 1734

Drop structures

Experimental Study of Flow in a Vortex Drop Shaft, 937

Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008

Droughts

Analyses of Drought Flow in Recession Period, 1085

Developing Multiple Indicators and Triggers for Drought Plans, 1817

SUBJECT INDEX

- Drought Storage Allocation Rules for Surface Reservoir Systems, 1842
- Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851
- Nonparametric Approach for Bivariate Drought Characterization using Palmer Drought Index, 1084
- Ductility**
- Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81
- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Behavior and Modeling of Fiber Reinforced Polymer-Confined Concrete, 9
- Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496
- Ductile Web Fracture Initiation in Steel Shear Links, 1556
- Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204
- Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200
- More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604
- New Avenue of Achieving Ductility for Reinforced Concrete Members, 1587
- Performance of Structures before and during Failure, 1972
- Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139
- Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599
- Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199
- Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223
- Dunes**
- Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996
- Lateral Variations in Suspended Sediment Concentration over Dunes, 1066
- Transition from Ripples to Dunes, 1063
- Durability**
- Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317
- Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208
- Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147
- Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216
- Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344
- Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280
- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305
- Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521

Dynamic loads

- Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263
- Dust**
- Evaluation of Dust Palliatives for Unpaved Roads in Arid Climates, 1394
- Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 665
- Dyes**
- Applicability of Equilibrium Isotherm Models for the Biosorptive Uptakes in Comparison to Activated Carbon-Based Adsorption, 764
- Comparison of SF_6 and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774
- Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656
- Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940
- Fenton and Electro-Fenton Methods for Oxidation of H-Acid and Reactive Black 5, 624
- Dynamic analysis**
- 3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705
- Accurate Representation of External Force in Time History Analysis, 438
- Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982
- Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381
- Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128
- Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129
- Explicit Integration Method for Extended-Period Simulation of Water Distribution Systems, 969
- Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
- New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535
- Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407
- Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513
- Strain Rate Model for Dynamic Analysis of Reinforced Concrete Structures, 1576
- Three-Dimensional Indirect Boundary Element Method Formulation for Dynamic Analysis of Frames Buried in Semi-infinite Elastic Media, 536
- Dynamic characteristics**
- Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
- Dynamic Behavior of Nonlinear Cable System. IV, 464
- Only Dynamics Can Absorb Dynamics, 403
- Dynamic loads**
- Accurate Representation of External Force in Time History Analysis, 438

Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529

Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135

Influence of Electrochemical Chloride Extraction on the Performance of Prestressed Concrete under Dynamic Loading Conditions, 1355

New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309

Short-Term Structural Instability under Random Dynamic Loads, 568

Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32

Dynamic models

Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663

Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79

Long-Term Dynamic Modeling Approach to Quantifying Attached Algal Growth and Associated Impacts on Dissolved Oxygen in the Lower Truckee River, Nevada, 739

On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554

Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649

Simple Dynamic Model for Fender Pile Analysis and Design, 1895

Simplified Model for Vertical Vibrations of Surface Foundations, 838

Dynamic properties

Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279

Dynamic response

Determination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74

Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475

Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520

Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526

Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561

Force Identification Based on Sensitivity in Time Domain, 544

Generalized Bouc — Wen Model for Highly Asymmetric Hysteresis, 495

Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579

Investigation of Foundation Vibrations Resting on a Layered Soil System, 789

Modified Sturm Sequence Property for Damped Systems, 515

More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572

Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538

Response of Nonstructural Components in Structures with Damping Systems, 1547

Size Effects and the Dynamic Response of Plain Concrete, 1315

Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547

Unloading and Reloading Stress — Strain Model for Confined Concrete, 1449

Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

Dynamic stability

Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461

Dynamic structural analysis

Application of Internally Damped Shearbeam Model to Analysis of Buildings under Earthquakes: Robust Procedure for Quick Evaluation of Seismic Performance, 1550

Dynamic tests

Comparison of Tests of a Nonlinear Structure using a Shake Table and the EFT Method, 1584

Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924

Degradation of Sands due to Combined Sinusoidal Loading, 930

Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446

Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391

Fundamental Frequency Testing of Reinforced Concrete Beams, 1384

Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594

Impact of Specimen Geometry on Dynamic Modulus Measurement Test Setup, 1314

New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100

Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174

Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162

Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385

Dynamics

Experimental Study of Ice Jam Formation Dynamics, 186

Multiphase/Multidomain Computations using Continuum and Lattice — Boltzmann Methods, 84

New Approach to Mission Design Based on the Fundamental Equations of Motion, 65

Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551

Rotation Response of a Rigid Body under Seismic Excitation, 472

SUBJECT INDEX

Earthquakes

Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607

Earth pressure

Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903

Cyclic Lateral Load Behavior of a Pile Cap and Backfill, 883

Design of a Rigid Cutoff Wall, 34

Passive Earth Pressure Mobilization during Cyclic Loading, 884

Performance of a Cantilever Retaining Wall, 875

Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974

Earthquake engineering

Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566

Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567

Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609

Comparison of Tests of a Nonlinear Structure using a Shake Table and the EFT Method, 1584

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

Fourway: Graphical Tool for Performance-Based Earthquake Engineering, 1564

Generalized Bouc - Wen Model for Highly Asymmetric Hysteresis, 495

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

New Measure for Severity of Near-Source Seismic Ground Motion, 1636

New Three-Dimensional Damage Index for RC Buildings with Planar Irregularities, 1585

Observations on the Reliability of Alternative Multiple-Mode Pushover Analysis Methods, 1485

Optimal H_{∞} Output Feedback Control Systems with Time Delay, 549

Plastic Hinge Integration Methods for Force-Based Beam - Column Elements, 1462

Seismic Evaluation of Steel Moment Frame Buildings Designed using Different R -Values, 1583

Seismic Fragility Analysis of Structural Systems, 473

Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591

Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537

Time-Delayed Positive Velocity Feedback Control Design for Active Control of Structures, 503

Earthquake loads

Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594

Holistic Approach for Assessing the Vulnerability of Buried Pipelines to Earthquake Loads, 1923

Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441

Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842

Earthquake resistant structures

Application of Internally Damped Shearbeam Model to Analysis of Buildings under Earthquakes: Robust Procedure for Quick Evaluation of Seismic Performance, 1550

Behavior of Reinforced Concrete Column - Steel Beam Roof Level T-Connections under Displacement Reversals, 1540

A Cautionary Tale, 1995

Inelastic Spectrum-Based Approach for Seismic Design Spectra, 1565

Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494

Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525

Earthquakes

Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885

Best Practices of Bridge System Management—A Synthesis, 1258

A Cautionary Tale, 1995

CPT-Based Probabilistic and Deterministic Assessment of In Situ Seismic Soil Liquefaction Potential, 873

Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381

Design of Architectural Glazing to Resist Earthquakes, 96

Determining Equivalent Linear Parameters for Use in a Capacity Spectrum Method of Analysis, 1445

Development of Real-Time Safety Control System for Urban Gas Supply Network, 801

Development, Shake Table Testing, and Design of FRP Seismic Restrainers, 152

Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526

Earthquake Hydrodynamic Pressure on Dams, 1046

Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115

First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809

General Approach for Training Back-Propagation Neural Networks in Vibration Control of Multidegree-of-Freedom Structures, 269

HAZUS Earthquake Loss Estimation Methods, 1927

Improved Image Analysis for Evaluating Concrete Damage, 265

Learning Seismic Design from the Earthquake Itself, 1986

Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844

Liquefaction Susceptibility Criteria for Silts and Clays, 908

Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922

Modal Seismic Control of Building Frames by Artificial Neural Network, 252

Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470

Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471

Orthogonal Effects in Seismic Analysis of Skewed Bridges, 116

Performance and Analyses of Mechanically Stabilized Earth Walls in the Tecoman, Mexico Earthquake, 1395

Prediction of Ductile Fracture in Steel Connections using SMCS Criterion, 1455

Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538

Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219

Return Period of Recorded Ground Motion, 1522

Rotation Response of a Rigid Body under Seismic Excitation, 472

Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243

Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367

Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591

Seismic Response of High Voltage Electrical Transformer-Bushing Systems, 1467

Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610

Site-Specific Validation of Random Vibration Theory-Based Seismic Site Response Analysis, 863

Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10

Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86

Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26

Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926

Earthwork

Innovations in Earthmoving Equipment: New Forms and Their Evolution, 386

Systems Analysis of Technical Advancement in Earthmoving Equipment, 385

Eccentric loads

Design of Circular Base Plates, 1970

High-Strength Concrete Columns under Eccentric Load, 1541

Eccentricity

Influence of Hopper Eccentricity on Discharge of Cylindrical Mass Flow Silos with Rigid Walls, 542

Ecology

Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology, 661

Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229

Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810

Optimization of Frequency Distribution of Stormwater Discharges for Coastal Ecosystem Restoration, 1835

Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688

Economic factors

Arsenic Removal from Water by Moving Bed Active Filtration, 583

Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169

Downstream Economic Benefits of Conservation Development, 1804

Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694

Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848

Economic Value of Building Faster, 363

Economically Driven Simulation of Regional Water Systems: Friant-Kern, California, 1849

Economic-Based Optimization of Panama Canal System Operations, 1852

Evaluating the Impact of Vessel-Traffic Interference on Container Terminal Capacity, 1862

Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input — Output Model, 1720

Exploring the Bidding Situation for Economically Most Advantageous Tender Projects using a Bidding Game, 390

Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139

Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819

Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851

Methodology to Develop Median Barrier Warrant Criteria, 1691

Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703

Relationship between Housing Affordability and Economic Development in Mainland China — Case of Shanghai, 1779

Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359

Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793

Economic models

Calibrating Holistic Water Resources — Economic Models, 1844

Economic Analysis of an Irrigation System for Liquid Manure Application, 1208

Ecuador

Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215

Eddy viscosity

Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896

Edge effect

Complex Edge Stiffeners for Thin-Walled Members, 1459

SUBJECT INDEX

Education-practice interchange

- Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93

Effective stress

- Hysteresis of Matrix Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490
- Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834

Efficiency

- Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733

Effluents

- Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646
- Density and Activity Characterization of Activated Sludge Flocs, 724
- Economic Analysis of an Irrigation System for Liquid Manure Application, 1208
- EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674
- Global Behaviors of a Round Buoyant Jet in a Countercurrent, 991
- Heavy Metals Removal from Acidic and Saline Soil Leachate using Either Electrochemical Coagulation or Chemical Precipitation, 660

Egypt

- Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Eigenvalues

- Modified Sturm Sequence Property for Damped Systems, 515

Elastic analysis

- Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Elastic foundations

- Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1975
- Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16

Elasticity

- Active Thrust Due to Backfill Subject to Lines of Surcharge, 805
- Analytical Stress — Strain Relations for Concrete Confined by Steel Stirrups and/or FRP Jackets, 1577
- Anisotropic Nonlinear Elastic Model for Particulate Materials, 874
- Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725
- Effective Moduli of Coated Particulate Composites with BCC Structure at High Concentration, 525
- Efficient Computation of Response Sensitivities for Inelastic Structures, 1464
- Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575
- Finite-Element Analysis of Hot Mix Asphalt Microstructure using Effective Local Material Properties and Strain Gradient Elasticity, 451
- "Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360
- Mechanical Grading of Round Timber Beams, 1261

Electrical conductivity

- Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinyl Ester Binder, 1340
- Postbuckling of Elastic Columns with Second-Mode Imperfection, 527
- Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Symmetric Catenary of a Uniform Elastic Cable of Neo-Hookean Material, 509
- Three-Dimensional Indirect Boundary Element Method Formulation for Dynamic Analysis of Frames Buried in Semiinfinite Elastic Media, 536

Elastoplasticity

- 3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705
- Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43
- Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81
- Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475
- Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23
- General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41
- Microstructure and Compactive Instabilities of a Stabilized Residue, 1290
- New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460
- Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489

Electric power outages

- Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161

Electric power supply

- Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419

Electric transmission lines

- Electrical Transmission Line and Substation Structures: Structural Reliability in a Changing World, 2062

Electric transmission structures

- Design of Steel Transmission Pole Structures (ASCE/SEI 48-05), 2058
- Electrical Transmission Line and Substation Structures: Structural Reliability in a Changing World, 2062
- Reliability-Based Design of Utility Pole Structures, 2082
- Seismic Response of High Voltage Electrical Transformer-Bushing Systems, 1467

Electrical conductivity

- Calibration of Electromagnetic Induction for Regional Assessment of Soil Water Salinity in an Irrigated Valley, 1213
- Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656
- Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302

Electrical conductivity

High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347

Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307

Electrical equipment

Generalized Bouc - Wen Model for Highly Asymmetric Hysteresis, 495

Seismic Response of High Voltage Electrical Transformer-Bushing Systems, 1467

Electrical resistivity

Early Hydration Process of Portland Cement Paste by Electrical Measurement, 1272

Electrical systems

Conceptual Planning Process for Electrical Construction, 417

Sequence Planning for Electrical Construction, 324

Electrokinetics

Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323

Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641

Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959

Elevation

Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646

Elevators

Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371

Embankments

Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044

Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45

In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904

Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911

Emergency services

Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419

Delay between Sensing and Response in Water Contamination Events, 1145

Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286

Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400

Rapid Bridge Replacement under Emergency Situation: Case Study, 130

Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247

Emissions

Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214

2006 ASCE TRANSACTIONS

Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714

Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Commercial Odor-Reducing Agents for Minimizing the Odor Potential of Asphalt Binders, 645

Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions, 1772

Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102

Emission of Polycyclic Aromatic Hydrocarbons on the Combustion of Liquid Crystal Display Components, 716

Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753

Structural Monitoring and Integrity Assessment of Medieval Towers, 1605

Technology Evaluation of Hydrogen Light-Duty Vehicles, 663

Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Transportation Choices and Air Pollution Effects of Telework, 1149

Vapor Leak Detection for an Underground Storage Tank System, 703

Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707

Empirical equations

Dynamic Uplift Scenarios for Floating Ice, 182

Nonlinear PLS Method for Side Weir Flows, 1219

Employees

Effect of Humor Usage by Engineers at Construction Sites, 1247

Human Systems Engineering™ — A Trilogy, Part II: May The Force Be With You: Anatomy Of Project Failures, 1904

Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402

Proposed Subcontractor-Based Employee Motivational Model, 303

Strategic Management of Human Resources in Construction, 1248

What Does the Construction Industry Value in its Workers?, 392

Employment

Job Performance Evaluation for Construction Companies: An Analytic Network Process Approach, 370

Endangered species

GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816

Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176

Energy

Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428

Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529

Future Environmental Regulation Issues to Promote Energy Efficiency, 427

SUBJECT INDEX

- Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221
- Practical Means for Energy-Based Analyses of Disproportionate Collapse Potential, 1400
- Energy absorption**
 - Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
 - Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209
- Energy consumption**
 - Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions, 1772
 - Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102
- Energy conversion**
 - New Static Sunshade Design for Energy-Efficient Buildings, 422
 - Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421
- Energy dissipation**
 - Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
 - Energy Dissipation on Reinforced Block Ramps, 1197
 - Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
 - Experimental Behavior of Stiffened and Unstiffened End-Plate Connections under Cyclic Loading, 1572
 - Experimental Study of Flow in a Vortex Drop Shaft, 937
 - Flow Patterns and Energy Dissipation over Various Stepped Chutes, 1172
 - Innovative Energy-Dissipating Hood, 1006
 - Learning Seismic Design from the Earthquake Itself, 1986
 - Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007
 - Turbulence Dissipation in Stirred Jars, 567
- Energy losses**
 - 3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954
 - Energy Dissipation on Block Ramps, 935
- Energy methods**
 - Nonlinear Stress-Strain Relationship of Soil Reinforced with Flexible Geofibers, 851
 - Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Energy storage**
 - Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429
- Engineering education**
 - Civil Engineering Crisis, 1907
 - Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433
 - Comparative Study of University Courses on Critical-Path Method Scheduling, 358
 - Creating a New School of Computer Science and Engineering in Kansas City, 1912
 - Determining the Content of the First Course in Transportation Engineering, 1423

Engineering profession

- Developing Knowledge Landscapes through Project-Based Learning, 1416
- Differences between Experts and Novices in the Review of Engineering Journal Papers, 1409
- Educating Engineers to Create a Sustainable Future, 631
- Effectiveness of Learning Transportation Network Growth through Simulation, 1410
- Engineering Experience and Competitions Implement ABET Criteria, 1419
- Gaining Retention and Achievement for Students Program: A Faculty Development Program, 1424
- Geotechnical Physical Modeling for Education: Learning Theory Approach, 1431
- Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425
- Improving Enrollment in the Master of Construction Management Program at Bowling Green State University, 1434
- Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432
- The Limitations of Planning: The Importance of Learning, 382
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Soils Magic*: Bringing Civil Engineering to the K-12 Classroom, 1417
- Engineering firms**
 - Boardrooms of Energy Firms in the Post-Enron Era, 424
 - Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910
 - Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309
 - Fundamental Analysis of Profitability of Large Engineering and Construction Firms, 1260
 - Human Systems Engineering™ — A Trilogy, Part II: May The Force Be With You: Anatomy Of Project Failures, 1904
 - On Globalization, 1908
 - System Model for Analyzing Design Productivity, 1240
 - Total Quality Performance of Design/Build Firms using Quality Function Deployment, 292
- Engineering profession**
 - At a Crossroads — Is Value-based Compensation the Answer?, 1919
 - Changing Our World: True Stories of Women Engineers, 2054
 - Civil Engineering: A Changing Profession, 1918
 - Civil Engineering Crisis, 1907
 - Daniel W. Mead Prizes for Younger Members and Students: Ethically Understanding the Role of Computer Software in Engineering Calculation, 2002
 - Don't Throw This Away!: The Civil Engineering Life, 2060
 - Mentoring in Engineering, 1909
 - Practical Means for Energy-Based Analyses of Disproportionate Collapse Potential, 1400
 - Preventing Disputes with Empathy, 1430
 - Research Publication Trends and Topics in *Compoupting in Civil Engineering*, 246
 - There's No Such Thing as Engineering Ethics, 1913

Engineering profession

Using Patents to Advance the Civil Engineering Profession, 2020

Vaporizing the Gathering Storm, 2005

The Widening Gulf, 2027

Engineering services

Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910

Measurement Design Is an Opportunity to Learn, 1917

Entrainment

Entrainment Properties of Plane Surface-Jets in Shallow Current, 967

Flow-Induced Failure of Cable-Tied Blocks, 964

Probability Density Function of Instantaneous Drag Forces and Shear Stresses on a Bed, 1050

Entropy

Entropy Application to Improve Construction Finance Decisions, 397

Entropy Models of Trip Distribution, 1774

Optimal H_∞ Output Feedback Control Systems with Time Delay, 549

Envelope

Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101

Building Integration Solutions, 2053

Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90

Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441

Environmental impacts

Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714

Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166

Mechanical Properties and Environmental Assessment of Mortars Containing Metallic Oxides, 706

Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Treating Soil PCP at Optimal Conditions using Heme and Peroxide, 678

Environmental issues

Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623

Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1776

Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1777

Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102

Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072

Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264

Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147

Emission of Polycyclic Aromatic Hydrocarbons on the Combustion of Liquid Crystal Display Components, 716

2006 ASCE TRANSACTIONS

Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344

Examining the Confluence of Environmental and Water Concerns, 2065

Example of a Hybrid Life-Cycle Assessment of Construction Processes, 1158

Future Environmental Regulation Issues to Promote Energy Efficiency, 427

Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819

Only Dynamics Can Absorb Dynamics, 403

Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993

Preventing Disputes with Empathy, 1430

Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88

Enzymes

Enhancing Bioremediation with Enzymatic Processes: A Review, 1947

Epoxy resins

Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344

Equations of motion

Accurate Representation of External Force in Time History Analysis, 438

Equations of state

Galerkin Solution for Linear Stochastic Algebraic Equations, 570

Equilibrium

Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513

Equipment

Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527

Erosion

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Control of Scour at Vertical Circular Piles under Waves and Current, 959

Critical Bed Shear Stress for Unisize Sediment, 949

Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990

Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044

Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065

Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860

Flow-Induced Failure of Cable-Tied Blocks, 964

Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113

Live-Bed Local Pier Scour Experiments, 995

Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861

Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953

SUBJECT INDEX

Evaluation

Scour Countermeasures for Wing-Wall Abutments, 988

Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957

Errors

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Damage Identification Based on Dead Load Redistribution: Effect of Measurement Error, 1563

Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220

Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599

Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001

Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Seismic Fragility Analysis of Structural Systems, 473

Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547

Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000

Time-Line Interpolation Errors in Pipe Networks, 961

Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102

Uncertainty Analysis for Coupled Watershed and Water Quality Modeling Systems, 1838

Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273

Estimation

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328

Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548

Estimation of Pavement Performance Deterioration using Bayesian Approach, 1144

Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324

Evaluation of Speed-Based Travel Time Estimation Models, 1721

HAZUS Earthquake Loss Estimation Methods, 1927

HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928

HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929

HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931

Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757

Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036

Model for Estimating Acute Health Impacts from Consumption of Contaminated Drinking Water, 1831

Optimal Instantaneous Unit Hydrograph from Multistorm Data, 1198

Peak Wind Load Comparison: Theoretical Estimates and ASCE 7, 1551

Predicting Construction Cost using Multiple Regression Techniques, 362

Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109

Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710

Estuaries

Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736

Effect of Chloride Ions on the Dechlorination of Hexachlorobenzene in the Presence of Zero-Valent Iron, 1965

Estuarine and Coastal Modeling — Proceedings of the Ninth International Conference, 2064

Growth and Decay of Estuary Ice Cover, 184

Hydrodynamics of Mesotidal Estuary in Winter, 185

Model Study of the Influence of Submerged Tidal Barriers on Estuarine Mixing and Exchange Processes, 1034

Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835

Resistivity Survey of the Subsurface Conditions in the Estuary of the Rio de la Plata, 784

Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893

Ethics

Daniel W. Mead Prizes for Younger Members and Students: Ethically Understanding the Role of Computer Software in Engineering Calculation, 2002

Organizational Distortions and Failures: A Method to Expose Them, 1408

Preventing Disputes with Empathy, 1430

There's No Such Thing as Engineering Ethics, 1913

Europe

The Berlin Connection, 2025

Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943

Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168

Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix — Grid Composites, 210

Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138

Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88

Evacuation

Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695

Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751

Evaluation

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177

Benchmarking Initiatives in the Construction Industry: Lessons Learned and Improvement Opportunities, 1255

A Cautionary Tale, 1995

- Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526
- Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635
- Estimating Fatigue Life of Bridge Components Using Measured Strains, 176
- Estimation of Uniform Delay of Permitted Left Turns from Exclusive Turn Lanes, 1741
- Evaluating the Impact of Vessel-Traffic Interference on Container Terminal Capacity, 1862
- Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701
- Evaluation Model for Information Systems Benefits in Construction Management Processes, 398
- Evaluation of Speed-Based Travel Time Estimation Models, 1721
- Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731
- In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175
- Job Performance Evaluation for Construction Companies: An Analytic Network Process Approach, 370
- Lateral Response Evaluation of Single Piles Using Inclinometer Data, 923
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Modeling of Functional Construction Requirements for Constructability Analysis, 418
- Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190
- Price and Nonprice Criteria for Contractor Selection, 367
- Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Technology Evaluation of Hydrogen Light-Duty Vehicles, 663
- Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686
- Evaporation**
- Artificial Neural Network Models of Daily Pan Evaporation, 1077
- Capillarity and Evaporation Exacerbated Seepage Losses from Unlined Channels, 1235
- Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181
- Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295
- Radioactive Waste Foams: Formation and Mitigation, 680
- Seepage to a Drainage Ditch and Optimization of Its Shape, 1234
- Evapotranspiration**
- Estimation of Evapotranspiration of Different-Sized Navel-Orange Tree Orchards using Energy Balance, 1164
- Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215
- Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190
- Sensitivity Analyses and Sensitivity Coefficients of Standardized Daily ASCE-Penman-Monteith Equation, 1228
- Evolutionary computation**
- Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Effects of Local Search Algorithms on Groundwater Remediation Optimization using a Self-Adaptive Hybrid Genetic Algorithm, 278
- Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- Excavation**
- Bayesian Updating Application into Simulation in the North Edmonton Sanitary Trunk Tunnel Project, 376
- Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49
- Ground Movement Predictions for Braced Excavations in Undrained Clay, 821
- Innovative Central Opening Strut System for Foundation Excavation, 293
- Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410
- Intelligent Utility Locating Tool for Excavators, 379
- Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- Novel Approach to Integration of Numerical Modeling and Field Observations for Deep Excavations, 872
- Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
- Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781
- Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974
- Excitation**
- Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463
- Dynamic Behavior of Nonlinear Cable System. IV, 464
- Equivalent Linearization for the Nonstationary Response Analysis of Nonlinear Systems with Random Parameters, 481
- Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63
- Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
- Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439
- Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538
- Sampled Data Feedback-Feedforward Control of Structures with Time Delays, 1549
- Expansive soils**
- Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43
- Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44
- Design and Installation of Deep Benchmarks in Expansive Soil, 1658
- Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280

SUBJECT INDEX

- Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846
- Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292
- Experimental data**
- Buckling of GFRP Columns: An Empirical Approach to Design, 242
- Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501
- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Equivalent Roughness Height for Plane Bed under Steady Flow, 1048
- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
- Sediment Transport in River Models with Overbank Flows, 939
- Shear Resistance of FRP RC Beams: Experimental Study, 235
- VOF Model for Simulation of a Free Overfall in Trapezoidal Channels, 1212
- Experimentation**
- Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567
- Analysis of Strength of Concrete using Design of Experiments and Neural Networks, 1329
- Automated Measurement of Railway Ballast Angularity, 1331
- Bond Behavior of Near-Surface Mounted CFRP Laminate Strips under Monotonic and Cyclic Loading, 218
- Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158
- Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189
- Cold-Formed Stainless Steel Sections Subjected to Web Crippling, 1451
- Condensed Model Identification and Recovery for Structural Damage Assessment, 1638
- Countermeasure Toe Protection at Spill-Through Abutments, 956
- Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197
- Development of FRP Short-Span Deployable Bridge — Experimental Results, 151
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488
- Dyed Microspheres for Quantification of UV Dose Distributions: Photochemical Reactor Characterization by Lagrangian Actinometry, 742
- Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
- Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560
- Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856
- Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862

External pressure

- Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473
- Experimental Investigation of Aluminum Alloy Thin-Walled Tubular Members in Combined Compression and Bending, 1632
- Experimental Study of Offset HSS Connections, 1511
- Experimental Verification of Smart Cable Damping, 462
- Identification of Poroelastic Constants of "Tight" Rocks from Laboratory Tests, 33
- Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884
- Live-Bed Local Pier Scour Experiments, 995
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676
- On the Free Vibrations of Variable-Arc-Length Beams: Analytical and Experimental, 1517
- Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390
- Properties of Asphalt Concrete Layer Interfaces, 1312
- Reduction of Vibrations due to Foundation Slabs, 825
- Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793
- Tests and Design of Aluminum Alloy Compression Members, 1546
- Three-Dimensional Topography of Debris-Flow Fan, 962
- Virtual Experiments for Welded Structural Steel Connections, 1983
- Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281
- Expert systems**
- Prediction of Concrete Strength using Neural-Expert System, 1311
- Explosions**
- Blast-Resistant Glazing Design, 97
- Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399
- Progressive Collapse — An Implosion Contractor's Stock in Trade, 1405
- Explosives**
- Biologically Mediated Reductive Transformation of Ordnance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948
- Bioremediation of Hazardous Wastes — A Review, 1946
- Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
- Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- External pressure**
- Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569

Extraction procedures

Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626

Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641

Fabrication

Construction, Inspection, and Maintenance of FRP Deck Panels, 245

Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113

Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281

Fabrics

Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62

Facilities

Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253

Knowledge Discovery in a Facility Condition Assessment Database using Text Clustering, 1142

Markov-Based Optimization Model for Building Facilities Management, 407

Multiproject Planning and Resource Controls for Facility Management, 416

Remarkable Rotation, 1994

Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367

Validation of Finite-Element Analyses for Storm Shelters, 89

Facility expansion

Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350

Faculty

Development of New Faculty: Summary of the NSF-CMS WEE Workshop, 1418

Differences between Experts and Novices in the Review of Engineering Journal Papers, 1409

Gaining Retention and Achievement for Students Program: A Faculty Development Program, 1424

Failure investigations

Collapse of the Quebec Bridge, 1907, 1373

Failure Investigation of a Foamed-Asphalt Highway Project, 1140

Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504

Failure loads

Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483

Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487

Virtual Experiments for Welded Structural Steel Connections, 1983

Failure modes

Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492

Strength of Lightweight Glass Aggregate Concrete, 1343

Structural Behavior of FRP Composite Bridge Deck Panels, 141

Failures

Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885

Cellular Automata Model for Predicting the Failure Pattern of Laterally Loaded Masonry Wall Panels, 276

Computing Travel Time Reliability in Transportation Networks with Multistates and Dependent Link Failures, 282

Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195

Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482

Failure Mechanisms and Deployment Accuracy of Elastic-Memory Composites, 75

Flow-Induced Failure of Cable-Tied Blocks, 964

Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553

Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582

Latent Building Defects: Causes and Design Strategies to Prevent Them, 1386

Learning Seismic Design from the Earthquake Itself, 1986

Limitations in the Back-Analysis of Strength from Failures, 828

Material Spatial Variability and Slope Stability for Weak Rock Masses, 796

Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578

Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492

Organizational Distortions and Failures: A Method to Expose Them, 1408

Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780

Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476

Strength of Two-Dimensional Nodal Zones in Strut-Tie Models, 1613

Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991

Structural Use of Glass, 98

Suction Stress Characteristic Curve for Unsaturated Soil, 791

Fast track construction

Accelerating the Construction of a Highway Bridge in Ohio, 1980

Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334

Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects, 333

SUBJECT INDEX

Fasteners

Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496

Wood Members Strengthened with Mechanically Fastened FRP Strips, 228

Fatalities

Comparative Injury and Fatality Risk Analysis of Building Trades, 342

Risk Factors to Driver Fatalities in Single-Vehicle Crashes: Comparisons between Non-Motorcycle Drivers and Motorcyclists, 1687

Fatigue

Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214

Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231

Analysis of Flexible Pavement Response and Performance using Isotropic and Anisotropic Material Properties, 1698

Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177

Behavior of Prestressed Concrete Strengthened with Various CFRP Systems Subjected to Fatigue Loading, 238

Consistent Approach to Calculating Stresses for Fatigue Design of Welded Rib-to-Web Connections in Steel Orthotropic Bridge Decks, 154

Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264

Fatigue and Healing of Asphalt Mixtures: Discriminate Analysis of Fatigue Curves, 1680

Fatigue Behavior of a Steel-Free FRP—Concrete Modular Bridge Deck System, 150

Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628

Fatigue Life of Girders with Trapezoidal Corrugated Webs, 1543

Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575

Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminate Systems, 232

Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138

Girder Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121

High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173

Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178

Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334

Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155

Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460

Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539

System for In-Service Strain Monitoring of Ordinary Bridges, 170

Fiber reinforced materials

Fatigue life

Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177

Bimodal Alongwind Fatigue of Structures, 1528

Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169

Estimating Fatigue Life of Bridge Components Using Measured Strains, 176

Fatigue Analysis of RC Slabs and Repaired RC Slabs Based on Crack Bridging Degradation Concept, 1532

Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135

Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574

Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111

Fatigue strength

Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628

Fatigue tests

Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145

Feasibility studies

CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312

Federal government

State Water Resources Planning in the United States, 2091

Feedback control

Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186

Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187

Model for Automated Monitoring of Fall Hazards in Building Construction, 360

Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504

Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180

Fenders

Simple Dynamic Model for Fender Pile Analysis and Design, 1895

Fertilizers

Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191

Fiber optics

Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566

Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567

Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737

Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126

Fiber reinforced materials

Behavior of a Fiber-Reinforced Bentonite at Large Shear Displacements, 918

- Bond Behavior of Near-Surface Mounted CFRP Laminate Strips under Monotonic and Cyclic Loading, 218
- Construction, Inspection, and Maintenance of FRP Deck Panels, 245
- Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126
- Effects of Strain and Damage on Strain-Sensing Ability of Carbon Fiber Cement, 1299
- Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065
- Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530
- Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306
- Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507
- Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634
- New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309
- Posttensioned Anchorage Zone Enhancement with Fiber-Reinforced Concrete, 159
- Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Upsetting Tests of Fresh Cementitious Composites for Extrusion, 450
- Fiber reinforced plastics**
- Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484
- Empirical Approach for Determining Ultimate FRP Strain in FRP-Strengthened Concrete Beams, 201
- Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492
- Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164
- Fracture Mechanics Method for Mode-I Interface Evaluation of FRP Bonded to Concrete Substrates, 1346
- Moment Capacities and Deflection Limits of PFRP Sheet Piles, 241
- Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297
- Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485
- Fiber reinforced polymers**
- Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214
- Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231
- Analytical Stress — Strain Relationship for Concrete Confined by Steel Stirrups and/or FRP Jackets, 1577
- Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225
- Behavior and Modeling of Fiber Reinforced Polymer-Confined Concrete, 9
- Behavior of Prestressed Concrete Strengthened with Various CFRP Systems Subjected to Fatigue Loading, 238
- Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227
- CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191
- CFRP Strengthening for Punching Shear of Interior Slab — Column Connections, 230
- Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333
- Characterization of Unistrut Connection Method with Pultruded Fiber-Reinforced Polymer Channels, 1342
- Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189
- Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222
- Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205
- Concrete Beams Strengthened with Prestressed Near Surface Mounted CFRP, 194
- Critical Review of Deflection Formulas for FRP-RC Members, 206
- Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197
- Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198
- Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195
- Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 29
- Development of FRP Short-Span Deployable Bridge — Experimental Results, 151
- Development, Shake Table Testing, and Design of FRP Seismic Restraints, 152
- Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208
- Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147
- Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216
- Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215
- Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202
- Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237
- Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345
- Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220
- Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143
- Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221
- Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145
- Fatigue Behavior of a Steel-Free FRP — Concrete Modular Bridge Deck System, 150
- FEA of Complex Bridge System with FRP Composite Deck, 196

SUBJECT INDEX

Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138

Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236

Long-Term Durability of State Street Bridge on Interstate 80, 125

Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200

Multiscale Nonlinear Framework for the Long-Term Behavior of Layered Composite Structures, 577

Nonlinear Finite-Element Analysis of a FRP-Strengthened Reinforced Concrete Bridge, 106

Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240

Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192

Performance Evaluation of FRP Bridge Deck Component under Torsion, 146

Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461

Performance in Fire of Small-Section CFRP Strengthened Concrete Beams, 239

Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209

Residual Tensile Properties of GFRP Reinforcing Bars after Loading in Severe Environments, 226

Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243

Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335

Shear Response of Concrete-Filled FRP Composite, 1533

Splicing of Precast Concrete-Filled FRP Tubes, 224

Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569

Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162

Strengthening of Interior Slab — Column Connections using a Combination of FRP Sheets and Steel Bolts, 229

Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991

Stress — Strain Behavior of Large-Scale Circular Columns Confined with FRP Composites, 1450

Structural Behavior of FRP Composite Bridge Deck Panels, 141

Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup — Field Application, 211

Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148

Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363

Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142

Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199

Field tests

Thermal Compatibility and Durability of Wearing Surfaces on GFRP Bridge Decks, 149

Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223

Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144

Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213

Wood Members Strengthened with Mechanically Fastened FRP Strips, 228

Fiberglass

Application of Polymers to Textile-Reinforced Concrete, 1338

Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126

Fibers

Control of PAHs from Incineration by Activated Carbon Fibers, 650

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339

Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471

Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297

Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Field investigations

Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104

Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754

Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120

Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145

Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963

High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173

Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020

Operations Management for Engineering Consulting Firms: A Case Study, 1249

Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109

Three-Dimensional Topography of Debris-Flow Fan, 962

Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750

Field tests

Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849

Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126

Field Evaluation of Crushed Glass — Dredged Material Blends, 831

Full-Scale Measurements to Investigate Rain — Wind Induced Cable-Stay Vibration and its Mitigation, 133

Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178

Field tests

- Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160
Observed Performance of Long Steel H-Piles Jacked into Sandy Soils, 779
Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174

Fills

- Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903

- Soil — Nail Pullout Interaction in Loose Fill Materials, 36

Filters

- Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646

- Air/Water Oxygen Transfer in a Biological Aerated Filter, 603

- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585

- Bayesian State Estimation Method for Nonlinear Systems and its Application to Recorded Seismic Response, 474

- Column Test Studies of Ochre Biofilm Formation in Geotextile Filters, 896

- Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929

- Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746

- Stability of Long Trenches in Sand Supported by Bentonite-Water Slurry, 4

- Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090

Filtration

- Aerobic Biofiltration Processes — Advances in Wastewater Treatment, 1969

- Analytic Solution on Critical Suspended Particle Size and Minimum Collection Efficiency in Deep Bed Filtration, 741

- Arsenic Removal from Water by Moving Bed Active Filtration, 583

- Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697

- Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698

- Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929

- Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856

- Stress-Controlled Filtration with Compressible Particles, 858

- Vermiculite Filtration for Removal of Oil from Water, 1957

- Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Financial management

- Boardrooms of Energy Firms in the Post-Enron Era, 424

2006 ASCE TRANSACTIONS

- CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312

- Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411

- Entropy Application to Improve Construction Finance Decisions, 397

- Examining the Business Impact of Owner Commitment to Sustainability, 326

- Fundamental Analysis of Profitability of Large Engineering and Construction Firms, 1260

- Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355

- Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298

- Relationship between Governance Structure and Financial Performance in Construction, 1239

Fine-grained soils

- Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885

- Field Study to Investigate WIDE Technology for TCE Extraction, 880

- Liquefaction Susceptibility Criteria for Silts and Clays, 908

- Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291

- Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Finite difference method

- Damage Assessment in Beams using Inverse Method, 469

- Seepage from a Rectangular Ditch to the Groundwater Table, 1192

Finite differences

- Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079

Finite element method

- 3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705

- Application of Graded Finite Elements for Asphalt Pavements, 459

- Change of Weld Residual Stresses due to Loss of Material, 1630

- Closed-Form Stiffness Matrix for the Four-Node Quadrilateral Element with a Fully Populated Material Stiffness, 581

- Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112

- Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849

- Continuous Interface Elements Subject to Large Shear Deformations, 21

- Crashworthiness of Motor Vehicle and Traffic Light Pole in Frontal Collisions, 1743

- Damage Assessment in Beams using Inverse Method, 469

- Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483

- DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892

- Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545

- Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48

SUBJECT INDEX

Ductile Web Fracture Initiation in Steel Shear Links, 1556

Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520

Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364

Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749

Evaluation of the Movements of the Dam Embankments by Means of Geodetic and Geotechnical Methods, 1645

Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391

FEA of Complex Bridge System with FRP Composite Deck, 196

Finite - Element Modeling of the Nonlinear Behavior of Bolted-T-Stub Connections, 1530

Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164

Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886

Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481

Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295

Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479

Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45

Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633

Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054

Hydrodynamics of Mesotidal Estuary in Winter, 185

Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440

Improved Strength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509

Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528

Influence of Hopper Eccentricity on Discharge of Cylindrical Mass Flow Silos with Rigid Walls, 542

Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37

Influence of Parapets and Aspect Ratio on Live-Load Distribution, 123

Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122

Interpretation of Impact Penetration Measurements in Soft Clays, 848

Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913

Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440

Minor Axis Moment-Thrust Response Behavior in Steel I-Shaped Members, 1544

Finite elements

Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024

Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62

Natural Frequencies of a Structure with Bounded Uncertainty, 578

New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460

Nonlinear Finite-Element Analysis of a FRP-Strengthened Reinforced Concrete Bridge, 106

Numerical Analysis of T-Bar Penetration in Soft Clay, 53

Orthogonal Effects in Seismic Analysis of Skewed Bridges, 116

Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390

Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911

Reduction of Vibrations due to Foundation Slabs, 825

Seasonal Deterioration of Unsurfaced Roads, 857

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516

Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474

Shear Behavior of Corrugated Web Bridge Girders, 1457

Shear Live-Load Distribution Factors for I-Girder Bridges, 124

Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542

Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973

Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476

Steady-State Diffusion — Advection by Exponential Finite Elements, 55

Strength and Behavior of Cold-Formed Steel Z-Sections Subjected to Major Axis Bending, 1600

Structural Damage Detection via Modal Data with Genetic Algorithms, 1586

Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148

Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54

Validation of Finite-Element Analyses for Storm Shelters, 89

Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144

Finite elements

Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44

Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49

Construction of Customized Mass-Stiffness Pairs using Templates, 80

Finite elements

- Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172
- Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489
- Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110
- Efficient Computation of Response Sensitivities for Inelastic Structures, 1464
- Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628
- Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575
- Finite-Element Analysis of Hot Mix Asphalt Microstructure using Effective Local Material Properties and Strain Gradient Elasticity, 451
- Freezing - Thawing Model for Soils and Rocks, 1286
- General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41
- Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602
- Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160
- Long-Term Structural Health Monitoring of the San Ysidro Bridge, 1365
- Multilaminate Macromodel for Concrete Masonry: Formulation and Verification, 1635
- Nonlinear Analysis of Reinforced Concrete Beam - Columns with Bond-Slip, 559
- Numerical Model for the Analysis of Unbonded Prestressed Members, 1442
- Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Plastic Hinge Integration Methods for Force-Based Beam - Column Elements, 1462
- Properties of Asphalt Concrete Layer Interfaces, 1312
- Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531
- Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603
- System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- Vehicle Collision with Bridge Piers, 1
- Virtual Experiments for Welded Structural Steel Connections, 1983
- Finland**
- Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090
- Fire hazards**
- Catastrophe Risk Models for Wildfires in the Wildland - Urban Interface: What Insurers Need, 1938
- Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512
- Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922
- The Place of Fire, 1932
- Fire protection**
- Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Fire resistance**
- Behavior of High Strength Structural Steel at Elevated Temperatures, 1631

2006 ASCE TRANSACTIONS

- Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512
- Performance in Fire of Small-Scale CFRP Strengthened Concrete Beams, 239
- Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Fire safety**
- Performance-Based Structural Fire Safety, 1369
- Fires**
- High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349
- Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286
- Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534
- Fish habitats**
- Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007
- Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling - Mekong River Basin, 1850
- Fish management**
- Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961
- Flanges**
- Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
- Interaction of Top Lateral and Internal Bracing Systems in Tub Girders, 1598
- Flexibility**
- Flexibility-Based Damage Localization from Stochastic Realization Results, 499
- Reliability Analysis of Deflection of Buried Flexible Pipes, 1754
- Seismic Design Forces. II: Flexible Nonstructural Components, 1590
- Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607
- Flexible pavements**
- 3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705
- Analysis of Flexible Pavement Response and Performance using Isotropic and Anisotropic Material Properties, 1698
- Comparative Study of Different Subbase Materials, 1326
- Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56
- Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725
- Effect of Heavy Multiple Axle Trucks on Flexible Pavement Damage using In-Service Pavement Performance Data, 1747
- Elastoplastic Model for the Long-Term Behavior Modeling of Unbound Granular Materials in Flexible Pavements, 40
- Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316
- Model to Predict Pavement Temperature Profile: Development and Validation, 1679
- Rational Approach for Base Type Selection, 1746

SUBJECT INDEX

Role of Learning Algorithm in Neural Network-Based Backcalculation of Flexible Pavements, 287
Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670

Flexible pipes

Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903
Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Flexural strength

Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198
Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339
Development and Production of Ready-Mixed Soil Material, 1354
Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306
Potential of Wood Waste Ash as an Additive in Concrete, 1330
Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263

Flexure

Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
Debonding- and Fatigue-Related Strain Limits for Externally Bonded FRP, 197
Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220
Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204
New Avenue of Achieving Ductility for Reinforced Concrete Members, 1587
Splicing of Precast Concrete-Filled FRP Tubes, 224
Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup—Field Application, 211

Floating bodies

Treatment of Polishing Wastewater from Semiconductor Manufacturer by Dispersed Air Flotation, 588
Wave Forcing of Small Floating Bodies, 1874

Floating ice

Dynamic Uplift Scenarios for Floating Ice, 182

Floating structures

Design, Construction, and Installation of a Floating Caisson used as a Bridge Pier, 1869
Experimental Study on the Hydrodynamics of a Floating, Production, Storage, and Offloading System, 1861
Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539
Viscous Effect on the Roll Motion of a Rectangular Structure, 454

Flocculation

Charge Reversal Effect on Blanket in Full-Scale Flocculation Clarifier, 756
Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664

Floods

Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647

The Role of Biofloculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655

Type II Settling Data Analysis, 598

Flood frequency

Bivariate Flood Frequency Analysis Using the Copula Method, 1086
Flood Frequency Analysis for Sicily, Italy, 1082
Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036

Flood hydrology

From a NEXRAD Rainfall Map to a Flood Inundation Map, 1074

Flood plains

Countermeasure Toe Protection at Spill-Through Abutments, 956
Flood Plain Filling by a Monoclinic Flood Wave, 984
Flow Resistance and Momentum Flux in Compound Open Channels, 1059
Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948
Methodology for Ranking the Elements of Water-Supply Networks, 1160
Scour around Bankline and Setback Abutments in Compound Channels, 933
Sediment Transport in River Models with Overbank Flows, 939

Flood routing

Flow Resistance and Momentum Flux in Compound Open Channels, 1059
Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217

Floods

2D Shallow-Water Model using Unstructured Finite-Volumes Methods, 958
Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
Analytical Solutions of Nonlinear Kinematic Wave Model, 1126
Bat Echolocation Interfering with Ultrasonic Sensors, 1069
Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963
Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754
Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127
Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131
Designed for Dry Feet: Flood Protection and Land Reclamation in the Netherlands, 2059
Development and Verification of an Analytical Solution for Forecasting Nonlinear Kinematic Flood Waves, 1107
Downstream Economic Benefits of Conservation Development, 1804
Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992

- Effects of Flood Control Structures on Flood Response for Hurricane Floyd in the Brandywine Creek Watershed, Pennsylvania, 1115
- Flood Estimation by GIUH-Based Clark and Nash Models, 1124
- Flood Frequency Analysis for Sicily, Italy, 1082
- Flood Plain Filling by a Monoclinical Flood Wave, 984
- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171
- Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080
- HAZUS — Its Development and Its Future, 1926
- HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928
- HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929
- Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808
- Numerical Calculation of Turbulence Structure in Depth-Varying Unsteady Open-Channel Flows, 999
- Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020
- Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810
- Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055
- Predictability of Annual Sediment Loads based on Flood Events, 1108
- Price of Permits: Measuring the Economic Impacts of Wetland Development on Flood Damages in Florida, 1934
- Probabilistic Behavior of Floods of Record in the United States, 1120
- Real Estate Market Response to Coastal Flood Hazards, 1936
- Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Butressing: Hydrostatic Load, 926
- Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123
- Validation of the Hydrological Processes in a Hydrological Model, 1117
- Floors**
- Market Disequilibrium and Urban Land Shortages: Analysis of Policy and Patterns in Hong Kong, 1780
- Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Florida**
- Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671
- Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391
- Hurricane Mitigation of the Florida House Learning Center, 1382
- Modeling Compressive Strength Development in Florida Concrete, 1362
- Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327
- Price of Permits: Measuring the Economic Impacts of Wetland Development on Flood Damages in Florida, 1934
- Royal Treatment, 2031
- Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740
- Turbocharged Organizational Change through High-Octane Management Training, 1916
- Flow**
- Plane Impulse Waves in Reservoirs, 1888
- Flow characteristics**
- Dimensionless Stage—Discharge Relationship in Radial Gates, 1184
- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305
- Flow control**
- Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180
- Flow distribution**
- Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974
- Flow measurement**
- Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121
- Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031
- Flow patterns**
- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- Flow Patterns and Energy Dissipation over Various Stepped Chutes, 1172
- Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699
- Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031
- Flow rates**
- Electromagnetic Wave Surface Velocimetry, 946
- Flow resistance**
- Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943
- Flow Resistance and Momentum Flux in Compound Open Channels, 1059
- Flow Resistance of Rock Chutes with Protruding Boulders, 986
- Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948
- Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049
- Flow separation**
- Asymmetric Flow in Symmetric Supercritical Expansions, 953
- Flow simulation**
- Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754
- Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122
- Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224

SUBJECT INDEX

Foam

Sediment Transport over Ripples in Oscillatory Flow, 950

Three-Dimensional CFD Predictions and Experimental Comparison of Pressure Drop of Some Common Pipe Fittings in Turbulent Flow, 426

Flow visualization

Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488

Fluid dynamics

Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068

Fluid flow

Asymmetric Flow in Symmetric Supercritical Expansions, 953

Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826

Improving Fluid Flow in Clarifiers using a Highly Porous Media, 726

Multiphase/Multidomain Computations using Continuum and Lattice — Boltzmann Methods, 84

Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017

Fluid mechanics

Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017

Fluidization

Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708

Fluidized beds

Adsorption and Desorption of Volatile Organic Compounds in Fluidized Bed, 648

Fluid-structure interaction

Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886

Fluid-Soil-Structure Interaction in Liquefaction around a Cyclically Moving Cylinder, 1882

Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488

Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898

Viscous Effect on the Roll Motion of a Rectangular Structure, 454

Flumes

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990

Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196

Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941

New Facility to Study River Abrasion Processes, 994

Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049

Fluoridation

Modeling the Sorption of Fluoride onto Alumina, 608

Flushing

Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183

Stress-Controlled Filtration with Compressible Particles, 858

Flutter

Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637

Flutter Phenomenon in Aeroelasticity and its Mathematical Analysis, 58

Nonlinear Aeroelasticity: Continuum Theory, Flutter/Divergence Speed, and Plate Wing Model, 76

Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551

Fluvial hydraulics

Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Critical Bed Shear Stress for Unisize Sediment, 949

Fly ash

Analysis of Strength of Concrete using Design of Experiments and Neural Networks, 1329

Assessing the Carbonation Behavior of Cementitious Materials, 1351

Comparative Study of Different Subbase Materials, 1326

Ecofriendly Concrete with High Volume of Lagoon Ash, 1310

Exploring Concrete Slump Model using Artificial Neural Networks, 266

High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347

High-Volume Fly Ash Concrete: Analysis and Application, 1976

Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273

Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654

Modeling Compressive Strength Development in Florida Concrete, 1362

Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993

Reclaimed Hydrated Fly Ash as a Geomaterial, 1283

Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277

Soil Stabilization in Semiarid and Arid Land Agriculture, 1282

Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291

Structural Performance Monitoring of an Unstabilized Fly Ash-Based Road Subbase, 1769

Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263

Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292

Foam

Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770

Folded plates

Folded plates

Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491

Transverse Analysis of Strutted Box Girder Bridges, 107

Footings

Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30

Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139

Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973

Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16

Undrained Bearing Capacity of Square and Rectangular Footings, 27

Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54

Forecasting

Application of Support Vector Machine in Lake Water Level Prediction, 1091

Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131

Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130

Development and Verification of an Analytical Solution for Forecasting Nonlinear Kinematic Flood Waves, 1107

Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992

Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843

Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712

Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111

Forecasting Project Status by using Fuzzy Logic, 406

The Gulf of Mexico Decommissioning Market, 369

Modeling Network Traffic for Planning Applications in a Small Community, 1790

Operating Reservoirs in Changing Conditions, 2078

Validation of the Hydrological Processes in a Hydrological Model, 1117

Foreign firms

Strengths, Weaknesses, Opportunities, and Threats for Foreign-Invested Construction Enterprises: A China Study, 384

Foreign projects

Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432

On Globalization, 1908

Forensic engineering

Forensic Engineering (2006), 2066

Learning Seismic Design from the Earthquake Itself, 1986

Foundation construction

Challenges of Underpinning Two Landmark Buildings, 1985

Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Foundation design

Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888

Foundation Analysis and Design -- Innovative Methods, 2067

Foundation settlement

Raked Piles -- Virtues and Drawbacks, 852

Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16

Foundations

Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119

Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45

Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565

Innovative Central Opening Strut System for Foundation Excavation, 293

Investigation of Foundation Vibrations Resting on a Layered Soil System, 789

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

Load Transfer in Rammed Aggregate Piers, 51

Protection Measures against Mine Subsidence Taken at a Building Site, 1278

Reduction of Vibrations due to Foundation Slabs, 825

Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288

Unsaturated Soils 2006, 2096

Fractals

Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079

Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531

Fracture mechanics

Damage Assessment in Beams using Inverse Method, 469

Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575

Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507

Study on the Average Fracture Energy for Crack Propagation in Concrete, 1357

Fractures

Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81

Application of Graded Finite Elements for Asphalt Pavements, 459

Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266

Ductile Web Fracture Initiation in Steel Shear Links, 1556

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530

Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557

Fracture Analysis of Shear Deformable Bi-Material Interface, 466

SUBJECT INDEX

- Fracture Mechanics Based Model for Joints under Cyclic Loading, 556
- Fracture Mechanics Method for Mode-I Interface Evaluation of FRP Bonded to Concrete Substrates, 1346
- Microvoid Damage Model with Material Dilation for Ductile Fracture, 546
- Normal Transmission of S-Wave across Parallel Fractures with Coulomb Slip Behavior, 498
- Numerical Modeling and Analysis of Solute Velocity and Macrodispersion for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104
- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192
- Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5
- Prediction of Ductile Fracture in Steel Connections using SMCs Criterion, 1455
- Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563
- Size Effect on Strength of Quasi-Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558
- Spatial Moment Analysis for One-Dimensional Nonisothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475
- Stress Zones near Displacement Piers. II: Radial Cracking and Wedging, 783
- Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627
- Framed structures**
- Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624
- Cross-Modal Strain Energy Method for Estimating Damage Severity, 477
- Empirical Evaluation of Structural Frame Performance Criteria: Realizing the Potential of Hybrid Concrete Construction, 316
- Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533
- Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470
- Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471
- Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
- New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535
- Frames**
- Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624
- Behavior of Complex Hat Shapes used as Truss Chord Members, 1501
- Ductile Web Fracture Initiation in Steel Shear Links, 1556
- Empirical Evaluation of Structural Frame Performance Criteria: Realizing the Potential of Hybrid Concrete Construction, 316
- Experiments of Cold-Formed Steel Connections and Portal Frames, 1498

Frequency

- Modal Seismic Control of Building Frames by Artificial Neural Network, 252
- Numerical Model for the Analysis of Unbonded Prestressed Members, 1442
- Performance-Based Structural Fire Safety, 1369
- Probabilistic Demand Models and Fragility Curves for Reinforced Concrete Frames, 1593
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472
- Semiautomatic Fuzzy Control of the Seismic Response of Building Frames, 1519
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622
- Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623
- Three-Dimensional Indirect Boundary Element Method Formulation for Dynamic Analysis of Frames Buried in Semifinite Elastic Media, 536
- Frazil ice**
- Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941
- Free flow**
- Dimensionless Stage-Discharge Relationship in Radial Gates, 1184
- Free surfaces**
- Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
- Seepage from a Rectangular Ditch to the Groundwater Table, 1192
- Freeze-thaw**
- Compatibility with Jet A-1 of a GCL Subjected to Freeze-Thaw Cycles, 920
- Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147
- Evaluating the Long-Term Performance of Geosynthetic Clay Liners Exposed to Freeze-Thaw, 804
- Freezing-Thawing Model for Soils and Rocks, 1286
- Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180
- Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307
- Freezing**
- Practical Model of Frost Heave in Clay, 786
- Thermal Transfer Analysis of a Freezing Soil Medium with an Embedded Pipeline, 181
- Frequency**
- Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203
- Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
- Reduction of Vibrations due to Foundation Slabs, 825
- Three-Dimensional Free Vibration Analysis of Multiphase Piezocomposite Structures, 524

Frequency analysis

Frequency analysis

- Damping in Shear Beam Structures and Estimation of Drift Response, 522
- Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543
- Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
- Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114
- Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898
- Nonparametric Approach for Bivariate Drought Characterization using Palmer Drought Index, 1084
- Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538

Frequency response

- Detection of Partial Blockage in Single Pipelines, 952

Friction

- Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047
- Analytical Investigation of Friction Sleeve Length Effects on Stratigraphic Interpretation, 13
- Effect of Convergence on Nonlinear Flow in Porous Media, 973
- Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707
- Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Experimental Study of Flow in a Vortex Drop Shaft, 937
- Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582
- Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527
- Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040
- Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576
- Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832
- Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914
- Range of Validity of the Transient Damping Leakage Detection Method, 1025
- Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049
- Soil Restraint to Oblique Movement of Buried Pipes in Dense Sand, 1681
- Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000
- Total Friction Loss along Multiple Outlets Pipes with Open End, 1167
- Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017

Friction resistance

- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565

Frost heave

- Practical Model of Frost Heave in Clay, 786

2006 ASCE TRANSACTIONS

Froude number

- Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
- Clear Water Local Scour by Submerged Three-Dimensional Wall Jets: Effect of Tailwater Depth, 989
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196

Frozen soils

- Cold Regions Engineering 2006 — Current Practices in Cold Regions Engineering, 2056
- Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611
- Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180

Full-scale tests

- Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761
- Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847
- Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
- Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138
- Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500
- Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504
- Racking Performance of Tall Unblocked Shear Walls, 1452
- Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495
- Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337
- Shear Behavior of Corrugated Web Bridge Girders, 1457

Funding allocations

- Decision Methodology for Allocating Funds across Transportation Infrastructure Assets, 1137
- Moving On, 2018

Furrow irrigation

- Comparison of Crop Contamination by Microorganisms during Subsurface Drip and Furrow Irrigation, 725
- Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
- Sensitivity Analysis of Soil Hydraulic Properties on Subsurface Water Flow in Furrows, 1211

Fuzzy sets

- ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
- Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735
- Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253
- Contaminant Transport Model for Unsaturated Soil using Fuzzy Approach, 752
- Entropy Application to Improve Construction Finance Decisions, 397

SUBJECT INDEX

- Evaluation of Drinking Water Treatment Technology: An Entropy-Based Fuzzy Application, 728
- Forecasting Project Status by using Fuzzy Logic, 406
- Four Alternative Definitions of the Fuzzy Safety Factor, 83
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171
- Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
- Fuzzy Logic Based Condition Rating of Existing Reinforced Concrete Bridges, 1392
- Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038
- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Semiactive Fuzzy Control of the Seismic Response of Building Frames, 1519
- Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773
- Gas**
 - Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
 - Effect of Gas on Pore Pressures in Wet Landfills, 829
 - Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871
 - Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664
 - Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
 - Removal of Toluene Vapor with Dispersed Activated Carbon, 622
- Gas pipelines**
 - Critical Flotation Density of Pipelines in Soils Liquefied by Waves and Density of Liquefied Soils, 1879
 - Liquefaction around Pipelines under Waves, 1880
- Gas recovery**
 - Vapor Leak Detection for an Underground Storage Tank System, 703
- Gasification**
 - Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956
- Gasoline**
 - Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944
- Gates**
 - Dimensionless Stage — Discharge Relationship in Radial Gates, 1184
- EOF Analysis of Complex Response of Venice Mobile Gates, 1872
- Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038
- Gaussian process**
 - Bimodal Alongwind Fatigue of Structures, 1528
- Evaluation of Karhunen-Loève, Spectral, and Sampling Representations for Stochastic Processes, 453

Geographic information systems

- Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012
- Geodetic surveys**
 - Base Station Establishment using Multiple Global Positioning Satellite Stations and Free Net Approach, 1644
 - Evaluation of a GPS-Based Approach for Rapid and Precise Determination of Geodetic/Astronomical Azimuth, 1661
 - Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659
 - Robustness Analysis of Two-Dimensional Networks, 1664
 - Solving an Inverse Problem of a Meridian Arc in Terms of Computer Algebra System, 1641
 - Stepwise Parameter Estimations in a Time-Variant Similarity Transformation, 1660
 - Use of Fresnel Enantimorphic Diffraction in Surveying Laser Methods, 1650
- Geographic information systems**
 - Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787
 - Application of GIS Technologies in Port Facilities and Operations Management, 2048
 - Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
 - Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663
 - Construction Scheduling and Progress Control using Geographical Information Systems, 285
 - Customizing Visualization in Three-Dimensional Urban GIS via Web-Based Interaction, 1782
 - Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227
 - Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695
 - Flood Estimation by GIUH-Based Clark and Nash Models, 1124
 - Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
 - From a NEXRAD Rainfall Map to a Flood Inundation Map, 1074
 - Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
 - Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646
 - GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816
 - GIS-Based Implementation of Three-Dimensional Limit Equilibrium Approach of Slope Stability, 839
 - Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215
 - Methodology for Ranking the Elements of Water-Supply Networks, 1160
 - New Methodology: Permit Checking of Vehicular Overloads, 131
 - Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286

Riverspillage: A National Application for Drinking Water Protection, 970

Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781

Satellite Monitoring of Urban Spatial Growth in the Amman Area, Jordan, 1796

Single Epoch Kinematic GPS Positioning Technique in Short Baseline, 1647

Strategic Decision Analysis for Selection of Landfill Sites, 1652

Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339

Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815

Geogrids

Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Geoid

Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655

Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643

Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640

Geology

Challenges of Underpinning Two Landmark Buildings, 1985

Development of Real-Time Safety Control System for Urban Gas Supply Network, 801

Protection Measures against Mine Subsidence Taken at a Building Site, 1278

Geomaterials

Analysis of Factors Affecting Strain Distribution in Geosynthetics, 777

In Field Soil Characterization: Approach Based on Texture Image Analysis, 787

Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19

Protection Measures against Mine Subsidence Taken at a Building Site, 1278

Reclaimed Hydrated Fly Ash as a Geomaterial, 1283

Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72

Site and Geomaterial Characterization, 2087

Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277

Geomembranes

Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657

High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690

Physical Response of Geomembrane Wrinkles Overlying Compacted Clay, 902

Geometry

Downstream Hydraulic Geometry of Alluvial Channels, 1067

Evaluation of Local Bending in Profile-Wall Polyethylene Pipes, 1762

Impact of Specimen Geometry on Dynamic Modulus Measurement Test Setup, 1314

Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571

Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055

Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062

Geomorphology

Flood Estimation by GIUH-Based Clark and Nash Models, 1124

Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758

Geophysical surveys

Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932

Resistivity Survey of the Subsurface Conditions in the Estuary of the Rio de la Plata, 784

Georgia

Defeating Delays, 2028

Developing Multiple Indicators and Triggers for Drought Plans, 1817

Impact of Property Management Services on Affordable Housing Residents in Atlanta, Georgia, 1387

Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793

Geosynthetics

3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705

Allowable Bearing Pressures of Bridge Sills on GRS Abutments with Flexible Facing, 855

Analysis of Factors Affecting Strain Distribution in Geosynthetics, 777

Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921

Column Test Studies of Ochre Biofilm Formation in Geotextile Filters, 896

Compatibility with Jet A-1 of a GCL Subjected to Freeze-Thaw Cycles, 920

Constriction Size of Geotextile Filters, 2

Effect of Wet-Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871

Evaluating the Long-Term Performance of Geosynthetic Clay Liners Exposed to Freeze-Thaw, 804

General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909

Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901

Seismic Response of a Composite Landfill Cover, 819

Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Geotechnical engineering

Advances in Unsaturated Soil, Seepage, and Environmental Geotechnics, 2046

SUBJECT INDEX

Granular materials

GeoCongress 2006: Geotechnical Engineering in the Information Technology Age, 2068
Geomechanics II — Testing, Modeling, and Simulation, 2069
Geotechnical Physical Modeling for Education: Learning Theory Approach, 1431
GEO-Volution: The Evolution of Colorado's Geological and Geotechnical Engineering Practice, 2070
Liquefaction, Cyclic Mobility, and Failure of Silt, 845
New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42
Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272
Reliability and Human Factors in Geotechnical Engineering, 836
Soils Magic: Bringing Civil Engineering to the K-12 Classroom, 1417
Stability of Submarine Pipelines on Liquefied Seabeds, 1878
Unsaturated Soil Mechanics in Engineering Practice, 807
Using Our Best Judgment, 2030
Geotechnical models
Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37
Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
Germany
The Berlin Connection, 2025
Girders
Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114
Critical Inclination of Compression Struts in Concrete Beams, 1508
Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143
Fatigue Life of Girders with Trapezoidal Corrugated Webs, 1543
Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575
Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574
Girder Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121
Interaction of Top Lateral and Internal Bracing Systems in Tub Girders, 1598
Glass
Blast-Resistant Glazing Design, 97
Design of Architectural Glazing to Resist Earthquakes, 96
Design of Window Glass for Lateral Pressures, 95
Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830
Landmark Library, 2021
Overture to Omaha, 2024
Strength of Lightweight Glass Aggregate Concrete, 1343
Structural Use of Glass, 98

Glass fibers

Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306

Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236

Glass reinforced plastics

Buckling of GFRP Columns: An Empirical Approach to Design, 242

Global positioning

3D Calculation of Stopping-Sight Distance from GPS Data, 1739

Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656

Base Station Establishment using Multiple Global Positioning Satellite Stations and Free Net Approach, 1644

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Evaluation of a GPS-Based Approach for Rapid and Precise Determination of Geodetic/Astronomical Azimuth, 1661

Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561

GPS Precise Point Positioning Software for Ground Control Point Establishment in Remote Sensing Applications, 1642

Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655

Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643

Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640

Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361

Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

Government

Influence of the National Performance Review on Supervisors in Government Organizations, 1920

Grade separation

Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668

Gradient

Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317

Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8

Graduate study

Improving Enrollment in the Master of Construction Management Program at Bowling Green State University, 1434

Grain size

Alternative Computation of Dean's Overfill Ratio, 1868

Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73

Granular materials

Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56

- Effect of Contact Force Models on Granular Flow Dynamics, 566
- Elastoplastic Model for the Long-Term Behavior Modeling of Unbound Granular Materials in Flexible Pavements, 40
- Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
- Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64
- Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37
- Input Parameters of Discrete Element Methods, 506
- Limit-State Curve of Base-Course Material and Its Relevance for Resilient Modulus Testing, 795
- Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785
- New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460
- Small-Strain Behavior of Granular Soils. I: Model for Cemented and Uncemented Sands and Gravels, 876
- Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32
- Granular media**
- Hysteresis of Matric Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490
- Minimizing Mass Transfer Effects in Granular Ion Batch Tests Using GEM Reactors, 776
- Graphic methods**
- Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922
- Grasses**
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196
- Gravel**
- Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
- Gravity**
- Performance of Overburnt Distorted Bricks as Aggregates in Pavement Works, 1352
- Great Lakes**
- Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011
- Greens function**
- Green's Function of the Linearized de Saint-Venant Equations, 447
- Grid systems**
- Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419
- Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208
- Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968
- Validation of a Three-Dimensional Computational Fluid Dynamics Model of a Contact Tank, 1005
- Ground motion**
- Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971

- Design and Installation of Deep Benchmarks in Expansive Soil, 1658
- Effects of Ground Motion Parameters and Cyclic Degradation Behavior on Collapse Response of Steel Moment-Resisting Frames, 1592
- Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
- General Approach for Training Back-Propagation Neural Networks in Vibration Control of Multidegree-of-Freedom Structures, 269
- Ground Motion Induced by Train Passage, 455
- Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905
- New Measure for Severity of Near-Source Seismic Ground Motion, 1636
- Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538
- Return Period of Recorded Ground Motion, 1522
- Safe Distance between Large-Diameter Rock Pipe Bursting and Nearby Buildings and Buried Structures, 1699
- Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928
- Underground Construction and Ground Movement, 2095
- Ground water**
- Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100
- Effects of Local Search Algorithms on Groundwater Remediation Optimization using a Self-Adaptive Hybrid Genetic Algorithm, 278
- Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data, 1135
- Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209
- Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837
- Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773
- Optimal Pumping from Skimming Wells, 1118
- Ground-water chemistry**
- Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
- Ground-water flow**
- Decreasing Measuring Errors of a Thermal Groundwater Flowmeter, 1195
- Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054
- Seepage from a Rectangular Ditch to the Groundwater Table, 1192
- Ground-water management**
- Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
- Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072
- Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848
- Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222
- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967

SUBJECT INDEX

Half space

- Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 762
- Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097
- Ground-water pollution**
- Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949
- Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673
- Biologically Mediated Reductive Transformation of Ordnance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948
- Column Study Simulating In Situ Bioremediation of Perchlorate using Acetate as an Organic Substrate, 1950
- Effects of Surface-Bound Fe^{2+} on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658
- Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations — Modeling Study, 589
- Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
- Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Identification of Groundwater Pollution Sources using GA-Based Linked Simulation Optimization Model, 1081
- Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709
- Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683
- Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681
- Low-Temperature Soil Heating using Renewable Energy, 659
- Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672
- Oxidation of Methyl *Tert*-Butyl Ether in Aqueous Solution by an Ozone/UV Process, 743
- Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944
- Remediation of a TCE Plume using a Three-Component Strategy, 1952
- Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610
- Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095
- Transport of Edible Oil Emulsions in Clayey Sands: 3D Sandbox Results and Model Validation, 1096
- Treatment of Contaminated Soils and Groundwater using ISCO, 1939
- Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers¹, 675
- Ground-water quality**
- Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- Factors Influencing Arsenite Removal by Zero-Valent Iron, 749
- Ground-water recharge**
- Character of Organic Matter in Soil-Aquifer Treatment Systems, 748
- Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732
- Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696
- Grouting**
- Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478
- Factors Affecting the Creep Behavior of Grouted Sand, 823
- Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905
- Multilaminate Macromodel for Concrete Masonry: Formulation and Verification, 1635
- Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822
- Guidelines**
- Construction, Inspection, and Maintenance of FRP Deck Panels, 245
- Gulf of Mexico**
- The Gulf of Mexico Decommissioning Market, 369
- Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313
- Special Report: The Big Uneasy, 2033
- Gulfs**
- 3D Model Application to Study Residual Flow in the Arabian Gulf, 1891
- Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902
- Gypsum**
- Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306
- Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507
- Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273
- Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298
- Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263
- Half space**
- Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18
- Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16

Halogen organic compounds

Halogen organic compounds

High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690

Iron Oxide Enhanced Chlorine Decay and Disinfection By-Product Formation, 767

MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584

Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944

Harbor facilities

Application of GIS Technologies in Port Facilities and Operations Management, 2048

Harbors

Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890

Application of GIS Technologies in Port Facilities and Operations Management, 2048

Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639

Multibjective Strategic Evaluation for Urban Development in Kaohsiung, Taiwan: Case Study, 1791

Prediction of Long Forcing Waves for Harbor Agitation Studie, 1871

Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294

Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893

Hardness

Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600

Hawaii

Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672

Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696

Hazardous materials

Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286

Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097

Hazardous wastes

Bioremediation of Hazardous Wastes — A Review, 1946

Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737

Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773

Natural Attenuation Assessment using Mineral Data, 1968

Organic Hazardous Substances in Graywater from Swedish Households, 700

Transformation of DDT and its Metabolites by Various Abiotic Methods, 662

Hazards

Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931

Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695

2006 ASCE TRANSACTIONS

Global System Considerations for Progressive Collapse with Extensions to Other Natural and Man-Made Hazards, 1406

Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425

Model for Automated Monitoring of Fall Hazards in Building Construction, 360

Real Estate Market Response to Coastal Flood Hazards, 1936

Safety Hazard Identification on Construction Projects, 308

Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758

Head loss

Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224

Health care facilities

A Healing Place, 1998

Key Performance Indicators for Strategic Healthcare Facilities Maintenance, 322

Health hazards

Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371

Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628

Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627

Heat transfer

Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295

Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64

Thermal Transfer Analysis of a Freezing Soil Medium with an Embedded Pipeline, 181

Heat treatment

Low-Temperature Soil Heating using Renewable Energy, 659

Heating

Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180

Heaving

Investigation of Heaving at Holloman Air Force Base, New Mexico, 1370

Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808

Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292

Heavy metals

Bioremediation of Hazardous Wastes — A Review, 1946

Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695

EDTA-Enhanced Washing for Remediation of Pb- and/or Zn-Contaminated Soils, 730

SUBJECT INDEX

- Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641
- Handling of Urban Snow with Regard to Snow Quality, 612
- Heavy Metals Removal from Acidic and Saline Soil Leachate using Either Electrochemical Coagulation or Chemical Precipitation, 660
- Mechanical Properties and Environmental Assessment of Mortars Containing Metallic Oxides, 706
- Potential of Wood Waste Ash as an Additive in Concrete, 1330
- Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627
- Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679
- Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717
- TCLP Heavy Metal Leaching of Personal Computer Components, 638
- Height**
- Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655
- Precise Height Determination using Leap-Frog Trigonometric Leveling, 1657
- Herbicides**
- Measured and Predicted Herbicide Removal by Mulch, 702
- Heterogeneity**
- Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37
- Simulation of Multidimensional Binary Random Fields with Application to Modeling of Two-Phase Random Media, 496
- High occupancy vehicles**
- Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682
- Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683
- High strength concretes**
- Case Study of a High-Performance Concrete Bridge in Tennessee, 1992
- Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749
- High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349
- Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243
- Torsional Design of Hybrid Concrete Box Girders, 136
- High strength steel**
- Behavior of High Strength Structural Steel at Elevated Temperatures, 1631
- Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Shear Behavior of Corrugated Web Bridge Girders, 1457

Highway transportation

Highway construction

- Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334
- Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752
- Inventive Maintenance, 2017
- Legal Challenge to a Best-Value Procurement System, 1906
- Lighting Requirements for Nighttime Highway Construction, 331
- Measuring Project Level Productivity on Transportation Projects, 319
- Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
- Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339
- Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733

Highway design

- Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701
- Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708
- Model for Three-Dimensional Highway Alignment, 1764

Highway maintenance

- Assessing Permanent Deformation Resistance of High Modulus Asphalt Mixtures, 1704
- Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695
- Inventive Maintenance, 2017
- Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141
- Turnpike Transformation, 2038

Highway management

- 3D Calculation of Stopping-Sight Distance from GPS Data, 1739
- Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481
- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686

Highway safety

- Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695
- Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701
- Geometric Models to Calculate Left-Turn Sight Distance for Signalized Intersections on Horizontal Curves, 1738

Highway transportation

- Moving On, 2018
- Paving America From Coast to Coast, 2016

Highway transportation

Speed Distribution Curves under Mixed Traffic Conditions, 1713

Highways

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Defeating Delays, 2028

Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695

Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711

Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Hydraulic Performance Curves for Highway Culverts, 978

Measured and Predicted Herbicide Removal by Mulch, 702

Methodology to Develop Median Barrier Warrant Criteria, 1691

Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700

Oil and Grease Measurement in Highway Runoff — Sampling Time and Event Mean Concentrations, 629

Reversible Lane Systems: Synthesis of Practice, 1766

Safety Analysis of Moving Road Vehicles on a Long Bridge under Crosswind, 478

Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665

Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670

Hinges

Development, Shake Table Testing, and Design of FRP Seismic Restrainers, 152

Historic sites

Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104

Challenges of Underpinning Two Landmark Buildings, 1985

Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix — Grid Composites, 210

Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361

Structural Analysis of the Wooden Structure of the Historical Building of Ali Qapu, 1616

Structural Monitoring and Integrity Assessment of Medieval Towers, 1605

Tipon: Water Engineering Masterpiece of the Inca Empire, 2093

History

Battery-Jerusalem Street Tunnel, 1374

Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341

HAZUS — Its Development and Its Future, 1926

Historic Discharge Measurements in Three Rhine Branches, 945

Inventive Maintenance, 2017

Offshore Technology in Civil Engineering: Hall of Fame Papers from the Early Years, 2077

Paving America From Coast to Coast, 2016

Tipon: Water Engineering Masterpiece of the Inca Empire, 2093

Turnpike Transformation, 2038

Using Patents to Advance the Civil Engineering Profession, 2020

Holes

In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904

Hollow sections

Cold-Formed Stainless Steel Sections Subjected to Web Crippling, 1451

Experimental Study of Offset HSS Connections, 1511

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475

Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476

Honeycomb structures

Determination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74

Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203

Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145

Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603

Hong Kong

Construction Delays in Hong Kong Civil Engineering Projects, 352

Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654

Evaluating the Impact of Vessel-Traffic Interference on Container Terminal Capacity, 1862

Exploratory Study of Knowledge Sharing in Contracting Companies: A Sociotechnical Perspective, 380

How Relational are Construction Contracts?, 1411

Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864

Market Disequilibrium and Urban Land Shortages: Analysis of Policy and Patterns in Hong Kong, 1780

Safety Climate in Construction Industry: A Case Study in Hong Kong, 345

Housing

Impact of Property Management Services on Affordable Housing Residents in Atlanta, Georgia, 1387

Incomplete Information Analysis for the Origin-Destination Survey Table, 1794

Influence of School Accessibility on Housing Values, 1785

Relationship between Housing Affordability and Economic Development in Mainland China — Case of Shanghai, 1779

Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494

Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495

Supply Chain Analysis and Modeling for the Manufactured Housing Industry, 1771

Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797

Hudson River

Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774

SUBJECT INDEX

Human factors

Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237

Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468

Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250

Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274

Reliability and Human Factors in Geotechnical Engineering, 836

Humidity

Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906

Hurricanes

Best Practices of Bridge System Management—A Synthesis, 1258

Effects of Flood Control Structures on Flood Response for Hurricane Floyd in the Brandywine Creek Watershed, Pennsylvania, 1115

HAZUS — Its Development and Its Future, 1926

HAZUS-MH Hurricane Model Methodology. I: Hurricane Hazard, Terrain, and Wind Load Modeling, 1930

HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931

Hurricane Katrina: Performance of Transportation Systems, 2074

Hurricane Mitigation of the Florida House Learning Center, 1382

Lessons from Katrina, 2009

Special Report: The Big Uneasy, 2033

Standards Governing Glazing Design in Hurricane Regions, 94

Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751

Validation of Finite-Element Analyses for Storm Shelters, 89

Hybrid methods

Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625

Double-Pass Photovoltaic-Thermal Solar Air Collector with Compound Parabolic Concentrator and Fins, 433

Effects of Local Search Algorithms on Groundwater Remediation Optimization using a Self-Adaptive Hybrid Genetic Algorithm, 278

Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446

Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538

Framework to Support the Representations of Semantic Mappings for a Hybrid Integration Strategy, 268

Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425

Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582

Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097

Hydrogen Production by Plasma Electrolysis, 431

Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244

Novel Hybrid Filter for the Treatment of Septic Tank Effluent, 685

Hydraulic jump

Numerical Model for the Analysis of Unbonded Prestressed Members, 1442

Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691

Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539

Torsional Design of Hybrid Concrete Box Girders, 136

Hydraulic conductivity

Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920

Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671

Evaluating the Long-Term Performance of Geosynthetic Clay Liners Exposed to Freeze-Thaw, 804

General Validity of Conductivity Means in Unsaturated Flow Models, 1125

Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773

Identification of Poroelastic Constants of "Tight" Rocks from Laboratory Tests, 33

Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892

Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953

Probability Density Functions in the Analysis of Hydraulic Conductivity Data, 1116

Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277

Slug Test Analysis in Vertical Cutoff Walls. I: Analysis Methods, 817

Slug Test Analysis in Vertical Cutoff Walls. II: Applications, 818

Hydraulic design

Hydraulic Analysis and Direct Design of Multiple Outlets Pipelines Laid on Flat and Sloping Lands, 1226

Innovative Energy-Dissipating Hood, 1006

Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089

Hydraulic engineering

Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038

Nonlinear PLS Method for Side Weir Flows, 1219

Hydraulic jets

Clear Water Local Scour by Submerged Three-Dimensional Wall Jets: Effect of Tailwater Depth, 989

Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936

Hydraulic jump

3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954

Energy Dissipation on Block Ramps, 935

Hydraulic Jumps in Sloping Channels: Sequent Depth Ratio, 1037

Particle Image Velocity Measurements of Unidirectional Hydraulic Jumps, 1060

Hydraulic loads

Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936

Hydraulic models

Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942

Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131

Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166

From a NEXRAD Rainfall Map to a Flood Inundation Map, 1074

Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948

Godunov-Type Solutions for Transient Flows in Sewers, 1010

Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833

Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225

Hydraulic networks

Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942

Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833

Hydraulic properties

Sensitivity Analysis of Soil Hydraulic Properties on Subsurface Water Flow in Furrows, 1211

Hydraulic roughness

Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220

Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948

Hydraulic structures

Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932

Energy Dissipation on Block Ramps, 935

Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065

Flood Frequency Analysis for Sicily, Italy, 1082

Hydraulics of Plane Plunge Pool Scour, 976

Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007

Scattering of Linear Water Waves by a Fixed and Infinitely Long Rectangular Structure Parallel to a Vertical Wall in Oblique Seas, 1865

Similarity of Large-Scale Turbulence in Experiments on Local Scour at Cylinders, 934

Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090

Hydraulics

Bottom Aeration of Stepped Spillways, 1014

Control of Scour at Vertical Circular Piles under Waves and Current, 959

Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264

Development of Air Concentration on Chute Spillways, 1023

Downstream Hydraulic Geometry of Alluvial Channels, 1067

Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181

Experimental Study of Surcharged Flow at Combining Sewer Junctions, 1058

Explicit Formulation of the Shields Diagram for Incipient Motion of Sediment, 1041

Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805

Scour Countermeasures for Wing-Wall Abutments, 988

Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957

Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204

Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205

Hydrocarbons

Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920

Control of PAHs from Incineration by Activated Carbon Fibers, 650

Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284

Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707

Hydrodynamic pressure

Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936

Transverse Pavement Grooving against Hydroplaning. I: Simulation Model, 1709

Transverse Pavement Grooving against Hydroplaning. II: Design, 1710

Hydrodynamics

3D Model Application to Study Residual Flow in the Arabian Gulf, 1891

Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944

Coastal Dynamics 2005 — State of the Practice, 2055

Earthquake Hydrodynamic Pressure on Dams, 1046

Experimental Study on the Hydrodynamics of a Floating, Production, Storage, and Offloading System, 1861

Growth and Decay of Estuary Ice Cover, 184

Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040

Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859

Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644

Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467

Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896

SUBJECT INDEX

Hydrology

- Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255
- Refinement Indicator for Mesh Adaption in Shallow-Water Modeling, 1015
- Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864
- Hydroelectric power generation**
- Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808
- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Hydrogen**
- Sustainability and Economics of the Advanced High-Temperature Reactor, 432
- Technology Evaluation of Hydrogen Light-Duty Vehicles, 663
- Hydrogen sulfides**
- Sulfur Impregnation on Activated Carbon Fibers through H_2S Oxidation for Vapor Phase Mercury Removal, 615
- Hydrogeology**
- Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906
- Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 762
- Hydrographic surveys**
- Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955
- Hydrographs**
- Development of Optimal and Physically Realizable Unit Hydrograph, 1134
- Evaluation of the Nash—Sutcliffe Efficiency Index, 1132
- Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097
- Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation, 1119
- Instantaneous Unit Hydrograph Evaluation for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas, 1218
- NRCS (SCS) Synthetic Curvilinear Dimensionless Unit Hydrograph, 1236
- Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198
- Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210
- Hydrologic data**
- Bat Echolocation Interfering with Ultrasonic Sensors, 1069
- Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821
- Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087
- Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092
- Hydrologic models**
- Analyses of Drought Flow in Recession Period, 1085
- Artificial Neural Network Models of Daily Pan Evaporation, 1077
- Assessment of Soil Moisture Dynamics of the Nebraska Sandhills using Long-Term Measurements and a Hydrology Model, 1216
- Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083
- Evaluation of the Nash—Sutcliffe Efficiency Index, 1132
- Flood Estimation by GIUH-Based Clark and Nash Models, 1124
- Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054
- From a NEXRAD Rainfall Map to a Flood Inundation Map, 1074
- Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080
- Hydrologic Modeling Inventory: Cooperative Research Effort, 1175
- Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128
- Modified Kostikov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230
- Nearshore Wave Modeling with High-Order Bousinesq-Type Equations, 1887
- Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217
- Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109
- RiverSpill*: A National Application for Drinking Water Protection, 970
- Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Stochastic Optimization of the Highland Lakes System in Texas, 1807
- Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102
- Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093
- Validation of the Hydrological Processes in a Hydrological Model, 1117
- Watershed Surface and Subsurface Spatial Intraflows Model, 1071
- Hydrology**
- Comparison of Two Nonparametric Alternatives for Stochastic Generation of Monthly Rainfall, 1094
- Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171
- Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731
- Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851
- Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076
- Stochastic Streamflow Simulation using SAMS-2003, 1177

Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092

Validation of the Hydrological Processes in a Hydrological Model, 1117

Watershed and River Systems Management Program: Overview of Capabilities, 1174

Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099

Watershed Surface and Subsurface Spatial Intraflows Model, 1071

Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815

Hydromechanics

Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23

Hydrometeorology

Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092

Hydrostatic pressure

Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569

Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926

Hyperbolic parabolic shells

Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364

Hysteresis

Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105

Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529

Generalized Bouc — Wen Model for Highly Asymmetric Hysteresis, 495

Hysteresis of Matric Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490

Hysteretic Model of Stiffened Shear Panel Dampers, 1486

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571

Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568

Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542

Unloading and Reloading Stress — Strain Model for Confined Concrete, 1449

Ice

Growth and Decay of Estuary Ice Cover, 184

Ice Stresses in Reservoirs: Effect of Water Level Fluctuations, 183

Ice cover

Hydrodynamics of Mesotidal Estuary in Winter, 185

Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

Ice forces

Formation of Breakup Ice Jams at Bridges, 1056

Ice formation

Experimental Study of Ice Jam Formation Dynamics, 186

Formation of Breakup Ice Jams at Bridges, 1056

Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941

Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

Ice jams

Experimental Study of Ice Jam Formation Dynamics, 186

Formation of Breakup Ice Jams at Bridges, 1056

Ice sheets

Formation of Breakup Ice Jams at Bridges, 1056

Identification

Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560

Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440

Identification of Contaminant Sources in Water Distribution Systems using Simulation — Optimization Method: Case Study, 1827

Implementation of a Feasible Control Design Process Incorporating Robustness Criteria for Wind-Excited High-Rise Buildings, 1448

Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279

Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174

System Identification and Damage Detection of a Prestressed Concrete Beam, 1606

Illinois

Assessment of Potential Seismic Damage to Residential Unreinforced Masonry Buildings in Northern Illinois, 1979

An Avoidable Tragedy, 2039

A Good Move, 2037

Serpentine Span, 2000

Through it All, 2004

Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

Imaging techniques

Analysis of Factors Affecting Strain Distribution in Geosynthetics, 777

Automated Measurement of Railway Ballast Angularity, 1331

Constriction Size of Geotextile Filters, 2

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268

Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713

Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

Global Behaviors of a Round Buoyant Jet in a Countercurrent, 991

Improved Design for Vision-Based Incident Detection in Transportation Systems using Real-Time View Transformations, 1755

SUBJECT INDEX

- In Field Soil Characterization: Approach Based on Texture Image Analysis, 787
- Measuring System for Cracks in Concrete using Multitemporal Images, 1651
- Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365
- Urban Origins/Destinations from High-Resolution Remote Sensing Images, 1783
- Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254
- Impact**
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
- Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537
- Impact loads**
- Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391
- Imperfections**
- Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
- Design Analysis for Buckling of Tanks and Silos, 1443
- Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574
- Implementation**
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205
- In situ tests**
- Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888
- CPT-Based Probabilistic and Deterministic Assessment of In Situ Seismic Soil Liquefaction Potential, 873
- Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990
- In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599
- Resistance Factors for Use in Shallow Foundation LRFD, 889
- Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10
- Structural Monitoring and Integrity Assessment of Medieval Towers, 1605
- Study of In Situ Pavement Material Properties Determined from FWD Testing, 1745
- Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161
- Incentives**
- Price and Nonprice Criteria for Contractor Selection, 367
- Incineration**
- Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751
- India**
- Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714
- Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects, 375

Inelastic action

- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Life of Maithon Reservoir on Ground of Sedimentation: Case Study in India, 1019
- Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718
- Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628
- Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190
- Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Simplified Kernel Method for Flow to Large Diameter Wells, 1173
- Structural Evaluation of Cement Concrete Roads in Mumbai City, 1379
- Industrial plants**
- Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
- Material Flow-Based Facility Layout Analysis of a Manufactured Housing Production Plant, 103
- Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308
- Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367
- Industrial wastes**
- Dam Break Wave of Thixotropic Fluid, 960
- Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619
- Enhancing Bioremediation with Enzymatic Processes: A Review, 1947
- Evaluation of Water Reuse Technologies for the Textile Industry, 618
- Fenton and Electro-Fenton Methods for Oxidation of H-Acid and Reactive Black 5, 624
- Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
- Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819
- Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679
- Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597
- Treatment of Polishing Wastewater from Semiconductor Manufacturer by Dispersed Air Flotation, 588
- Industrial water**
- Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691
- Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679
- Inelastic action**
- Identification and Interpretation of Microplane Material Laws, 465
- New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535

- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515
 Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516
 Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513

Infiltration

- Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105
 Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921
 Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775
 Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
 Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083
 Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890
 Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
 Grass Swale-Perforated Pipe Systems for Stormwater Management, 1170
 Modified Kostiakov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230
 Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154
 Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102

Inflatable structures

- Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79
 Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603

Inflow

- Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154
 Stochastic Optimization of the Highland Lakes System in Texas, 1807
 Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710

Information management

- 3D Scan Information Management System for Construction Management, 301
 Application of Dependency Structure Matrix for Activity Sequencing in Concurrent Engineering Projects, 336
 Construction IT Decision Making Using Multiattribute Utility Theory for Use in a Laboratory Information Management System, 414
 Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388
 Development of an Industry Foundation Classes Assembly Viewer, 257
 Disaster Recovery System Model with E-Government Case Study, 1937
 Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159
 Firm Performance and Information Technology Utilization in the Construction Industry, 338
 GeoCongress 2006: Geotechnical Engineering in the Information Technology Age, 2068

- Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365

- Organizational Distortions and Failures: A Method to Expose Them, 1408

- Prototype System for Knowledge Problem Definition, 340

- Success/Failure Factors and Performance Measures of Web-Based Construction Project Management Systems: Professionals' Viewpoint, 295

- System Model for Analyzing Design Productivity, 1240

- Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161

Information retrieval

- Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365

- Ontology-Centered Knowledge Management using Information Retrieval Techniques, 270

Information systems

- Construction Scheduling and Progress Control using Geographical Information Systems, 285
 Evaluation Model for Information Systems Benefits in Construction Management Processes, 398
 Framework to Support the Representations of Semantic Mappings for a Hybrid Integration Strategy, 268
 Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247
 Success/Failure Factors and Performance Measures of Web-Based Construction Project Management Systems: Professionals' Viewpoint, 295

Information technology (IT)

- Application of Web Services for Structural Engineering Systems, 260
 Construction IT Decision Making Using Multiattribute Utility Theory for Use in a Laboratory Information Management System, 414
 Creating a New School of Computer Science and Engineering in Kansas City, 1912
 Evaluation of Legal Risks for E-Commerce in Construction, 1438
 Experimental Assessment of Wireless Construction Technologies, 388
 Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237
 Improving Value Generation in the Design Process of Industrial Projects using CAVT, 1243
 MACROS: Multiobjective Automated Construction Resource Optimization System, 1252
 Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401
 Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365
 Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337
 Potential of Augmented Reality as an Assistant Viewer for Computer-Aided Drawing, 280
 Prototype System for Knowledge Problem Definition, 340
 Success/Failure Factors and Performance Measures of Web-Based Construction Project Management Systems: Professionals' Viewpoint, 295
 Systems Analysis of Technical Advancement in Earthmoving Equipment, 385

SUBJECT INDEX

Inspection

- Using Our Best Judgment, 2030
- Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318
- Infrastructure**
- 17th Analysis and Computation Specialty Conference, 2044
- Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156
- Applications of Advanced Technology in Transportation, 2049
- CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312
- Cold Regions Engineering 2006 — Current Practices in Cold Regions Engineering, 2056
- Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290
- Condition Rating Model for Underground Infrastructure Sustainable Water Mains, 1376
- Contingency Planning in Project Selection using Multi-objective Optimization and Chance Constraints, 1148
- Cost-Effectiveness of Railway Infrastructure Renewal Maintenance, 1729
- Decision Methodology for Allocating Funds across Transportation Infrastructure Assets, 1137
- Delay between Sensing and Response in Water Contamination Events, 1145
- Downstream Economic Benefits of Conservation Development, 1804
- Factor Analysis of Public Clients' Best-Value Objective in Public — Privately Partnered Infrastructure Projects, 383
- Hedgehog and Fox Strategies for Reducing Risks in Infrastructure Systems, 1935
- Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163
- Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350
- Infrastructure Planning Handbook -- Planning, Engineering, and Economics, 2075
- Knowledge Discovery in a Facility Condition Assessment Database using Text Clustering, 1142
- Lessons from Katrina, 2009
- Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162
- Modeling Cost Escalation in Large Infrastructure Projects, 373
- Operational Response Model for Physically Attacked Water Networks using NSGA-II, 283
- Pipelines 2006 — Service to the Owner, 2080
- Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154
- Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298
- RiverSpill*: A National Application for Drinking Water Protection, 970
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Statistical Modeling of User Perceptions of Infrastructure Condition: Application to the Case of Highway Roughness, 1677
- Terrorism Risks and Blast Damage to Built Infrastructure, 1933
- Using Advanced Inspection Technologies to Support Investments in Maintenance and Repair of Transportation Infrastructure Facilities, 1669
- Utilization of Trenchless Construction Methods in Mainland China to Sustain Urban Infrastructure, 1984
- Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275
- Injection**
- Diagnostic Curve for Estimating Soil Dispersivity and Instantaneously Injected Mass, 1194
- Injection wells**
- Field Study to Investigate WIDE Technology for TCE Extraction, 880
- Spatial Moment Analysis for One-Dimensional Non-isothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106
- Injuries**
- Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320
- Blast-Resistant Glazing Design, 97
- Comparative Injury and Fatality Risk Analysis of Building Trades, 342
- Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393
- Inlets, waterways**
- Design of Street Curb Opening Inlets using a Decay-Based Clogging Factor, 1057
- Innovation**
- Foundation Analysis and Design -- Innovative Methods, 2067
- Innovations in Earthmoving Equipment: New Forms and Their Evolution, 386
- Stimulating Construction Innovation in Singapore through the National System of Innovation, 394
- Systems Analysis of Technical Advancement in Earthmoving Equipment, 385
- Inorganic chemicals**
- Bioremediation of Hazardous Wastes — A Review, 1946
- Comparison of Methods for Determining Specific Surface Area of Soils, 865
- Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653
- Rheological Characterization of Asphalt Emulsions Residues, 1304
- Transformation of DDT and its Metabolites by Various Abiotic Methods, 662
- Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097
- Inspection**
- Construction, Inspection, and Maintenance of FRP Deck Panels, 245
- Fuzzy Logic Based Condition Rating of Existing Reinforced Concrete Bridges, 1392
- In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175

Inspection

- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Performance Prediction of Bridge Deck Systems using Markov Chains, 1378
- Using Advanced Inspection Technologies to Support Investments in Maintenance and Repair of Transportation Infrastructure Facilities, 1669

Installation

- Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089

Instream flow

- Value of Instream Recreation in the Sonoran Desert, 1806
- Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling — Mekong River Basin, 1850

Instrumentation

- Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942
- Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725
- Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707
- Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178
- Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155
- Performance of a Cantilever Retaining Wall, 875
- System for In-Service Strain Monitoring of Ordinary Bridges, 170

Insulation

- Design Errors: Inefficiency or Carelessness of Designer?, 1383
- Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244
- Structural Insulated Panels: Impact on the Residential Construction Process, 366

Insurance

- Catastrophe Risk Models for Wildfires in the Wildland — Urban Interface: What Insurers Need, 1938
- Real Estate Market Response to Coastal Flood Hazards, 1936

Intakes

- Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975
- Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011
- RiverSpill: A National Application for Drinking Water Protection, 970
- Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062

Integrated systems

- Building Integration Solutions, 2053
- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

2006 ASCE TRANSACTIONS

- Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248
- Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851

Intelligent structures

- Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66

Intelligent transportation systems

- Algorithm Fusion for Detecting Incidents on Singapore's Central Expressway, 1696
- Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712
- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- Short-Term Freeway Traffic Flow Prediction: Bayesian Combined Neural Network Approach, 1675
- System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263

Interactions

- Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258
- Observed Performance of Long Steel H-Piles Jacked into Sandy Soils, 779

Interchanges

- Actuated Signal Operations of Congested Diamond Interchanges, 1750
- Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732

Interface shear

- Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914

Interfaces

- Analytical Investigation of Friction Sleeve Length Effects on Stratigraphic Interpretation, 13
- Continuous Interface Elements Subject to Large Shear Deformations, 21
- Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484
- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707
- Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492
- Fracture Analysis of Shear Deformable Bi-Material Interface, 466
- Fracture Mechanics Based Model for Joints under Cyclic Loading, 556
- Fracture Mechanics Method for Mode-I Interface Evaluation of FRP Bonded to Concrete Substrates, 1346
- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- "Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360
- Identifying a Design Management Package to Support Concurrent Design in Building Wafer Fabrication Facilities, 348
- Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192
- Properties of Asphalt Concrete Layer Interfaces, 1312

SUBJECT INDEX

Soil — Nail Pullout Interaction in Loose Fill Materials, 36

Three-Dimensional Free Vibration Analysis of Multiphase Piezocomposite Structures, 524

Internal forces

Section Stress Characteristic Curve for Unsaturated Soil, 791

Internal waves

Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858

Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir, 1047

Transformation, Attenuation, Setup, and Undertow of Internal Waves on a Gentle Slope, 1901

International factors

Case-Based Reasoning Model for International Market Selection, 381

Civil Engineering Crisis, 1907

Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910

Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309

Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432

MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects, 332

On Globalization, 1908

Vaporizing the Gathering Storm, 2005

Internet

Application of Web Services for Structural Engineering Systems, 260

Construction Business Automation System, 296

Customizing Visualization in Three-Dimensional Urban GIS via Web-Based Interaction, 1782

Evaluation of Legal Risks for E-Commerce in Construction, 1438

Experimental Assessment of Wireless Construction Technologies, 388

Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248

Internet-Enabled Remote Observation and Control of a Shake Table Experiment, 271

Moving a Reinforced-Concrete Building: Case Study, 299

Success/Failure Factors and Performance Measures of Web-Based Construction Project Management Systems: Professionals' Viewpoint, 295

Use of a WBS Matrix to Improve Interface Management in Projects, 294

Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273

Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318

Intersections

Geometric Models to Calculate Left-Turn Sight Distance for Signalized Intersections on Horizontal Curves, 1738

Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757

Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Probabilistic Model for Signalized Intersection Capacity with a Short Right-Turn Lane, 1685

Upstream Signalized Crossover Intersection: An Unconventional Intersection Scheme, 1763

Interstate highways

Analytical Procedures for Estimating Capacity of Freeway Weaving, Merge, and Diverge Sections, 1731

Inventive Maintenance, 2017

Moving On, 2018

Paving America From Coast to Coast, 2016

Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339

Investments

CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312

CommunityViz-Based Prototype Model for Assessing Development Impacts in a Naturalized Floodplain — EmiquonViz, 1795

Optimization of Investments in Natural Gas Distribution Networks, 425

Ion exchange

Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771

Physico-Chemical Changes in Clay Caused by Ion Migration from Lime Piles, 1281

Iran

Structural Analysis of the Wooden Structure of the Historical Building of Ali Qapu, 1616

Iron

Arsenic Removal from Water by Moving Bed Active Filtration, 583

Effect of Chloride Ions on the Dechlorination of Hexachlorobenzene in the Presence of Zero-Valent Iron, 1965

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Effects of Surface-Bound Fe²⁺ on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658

Factors Influencing Arsenite Removal by Zero-Valent Iron, 749

High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690

Iron Oxide Enhanced Chlorine Decay and Disinfection By-Product Formation, 767

Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683

Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959

Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776

Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480

Iron

Irrigation

Irrigation

- Achieving Water Use Efficiency in Irrigation Districts, 1846
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
- Calibration of Electromagnetic Induction for Regional Assessment of Soil Water Salinity in an Irrigated Valley, 1213
- Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227
- Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182
- Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843
- Estimation of Evapotranspiration of Different-Sized Navel-Orange Tree Orchards using Energy Balance, 1164
- Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839
- Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168
- Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215
- Irrigation Scheduling with Travel Times, 1188
- Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229
- Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Optimal Irrigation Planning under Water Scarcity, 1189
- Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178
- Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202
- Set Sprinkler Irrigation and Its Cost, 1214
- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204
- Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205
- Irrigation districts**
- Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199
- Model for the Simulation of Water Flows in Irrigation Districts. II: Application, 1200
- Irrigation practices**
- Modeling Water Movement and Flux from Membrane Pervaporation Systems for Wastewater Microirrigation, 714
- Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Irrigation scheduling**
- Optimal Irrigation Planning under Water Scarcity, 1189

2006 ASCE TRANSACTIONS

- Productivity and Equity of Different Irrigation Schedules under Limited Water Supply, 1203
- Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Irrigation systems**
- Economic Analysis of an Irrigation System for Liquid Manure Application, 1208
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201
- Irrigation water**
- Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Islands**
- Limitations of Depth-Averaged Modeling for Shallow Wakes, 1004
- Isolation**
- Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115
- Property Modification Factors for Seismically Isolated Bridges, 140
- Isotherms**
- Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616
- Isotopes**
- Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681
- Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696
- Isotropic materials**
- Diagnostic Curve for Estimating Soil Dispersivity and Instantaneously Injected Mass, 1194
- Isotropy**
- Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582
- Israel**
- Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers', 675
- Italy**
- EOF Analysis of Complex Response of Venice Mobile Gates, 1872
- Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix — Grid Composites, 210
- Flood Frequency Analysis for Sicily, Italy, 1082
- Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797
- Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105
- Structural Monitoring and Integrity Assessment of Medieval Towers, 1605
- Jacking**
- Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854
- Japan**
- Cross-Shore Internal Waves in Zampa Coastal Region of Okinawa Island, 1858

SUBJECT INDEX

Kriging

- Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020
- Rotation Response of a Rigid Body under Seismic Excitation, 472
- Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781
- Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793
- Jets**
- Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511
- Multiple Tandem Jets in Cross-Flow, 1027
- Joints**
- Behavior of Beam-Column Joints made of Sustainable Concrete under Cyclic Loading, 1336
- Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707
- Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479
- Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936
- Fracture Mechanics Based Model for Joints under Cyclic Loading, 556
- Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469
- The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513
- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476
- Use of an Infrared Joint Heater to Improve Longitudinal Joint Performance in Hot Mix Asphalt Pavements, 1380
- Kansas**
- Catastrophe-Induced Destruction and Reconstruction, 1924
- Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092
- Kaolin**
- Metakaolin as an Extender in South African Cement, 1332
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489
- Kinematic wave theory**
- Analytical Solutions of Nonlinear Kinematic Wave Model, 1126
- ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
- Kinematic Wave Parameters for Trapezoidal and Rectangular Channels, 1088
- Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210
- Kinematics**
- Development and Verification of an Analytical Solution for Forecasting Nonlinear Kinematic Flood Waves, 1107
- General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41
- Kinetics**
- Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673
- Development of a Response Surface for Prediction of Nitrate Removal in Sulfur—Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721
- Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591
- Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772
- Impact of Inherent Factors on the Radiolytic Degradation of Biorefractory Contaminants, 755
- Inactivation Kinetics of the Cyanobacterial Toxin Microcystin-LR by Free Chlorine, 692
- Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776
- Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649
- Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745
- The Role of Biofloculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655
- Knowledge-based systems**
- Case-Based Reasoning Model for International Market Selection, 381
- Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237
- The Limitations of Planning: The Importance of Learning, 382
- Ontology-Centered Knowledge Management using Information Retrieval Techniques, 270
- Prototype System for Knowledge Problem Definition, 340
- Safety Hazard Identification on Construction Projects, 308
- Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318
- Korea**
- Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422
- Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130
- Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793
- Kriging**
- GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816

Labor

Labor

Effects of Schedule Pressure on Construction Performance, 306

Fundamental Principles for Avoiding Congested Work Areas — A Case Study, 1989

Laboratories

Through it All, 2004

Laboratory tests

Assessing Permanent Deformation Resistance of High Modulus Asphalt Mixtures, 1704

Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105

Biologically Mediated Reductive Transformation of Ordinance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948

Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560

Design of Compacted Lateritic Soil Liners and Covers, 798

Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769

Development of a University Laboratory Chemical Inventory and Exchange Program, 1945

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487

Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033

Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90

Fatigue and Healing of Asphalt Mixtures: Discriminate Analysis of Fatigue Curves, 1680

Flow Patterns and Energy Dissipation over Various Stepped Chutes, 1172

Force Identification Based on Sensitivity in Time Domain, 544

Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011

Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594

Hydrodynamic Characteristics of Pile-Supported Vertical Wall Breakwaters, 1863

Identification of Poroelectric Constants of "Tight" Rocks from Laboratory Tests, 33

Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280

Intelligent Utility Locating Tool for Excavators, 379

Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683

Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830

Laboratory Evaluation of Smear Zone and Correlation between Permeability and Moisture Content, 867

Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941

Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488

2006 ASCE TRANSACTIONS

Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864

Laboratory Study of Liquefaction due to Wave-Seabed Interaction, 856

Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776

Parallel Walls as an Abutment Scour Countermeasure, 982

Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19

Physical Analog of the Linear Reservoir, 1089

Soil — Nail Pullout Interaction in Loose Fill Materials, 36

Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285

Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541

Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031

Vertical Drain Consolidation with Parabolic Distribution of Permeability in Smear Zone, 866

Viscoelastic Modeling and Field Validation of Flexible Pavements, 452

Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32

Lagoons

Ecofriendly Concrete with High Volume of Lagoon Ash, 1310

Lakes

Application of Support Vector Machine in Lake Water Level Prediction, 1091

Artificial Neural Network Models of Daily Pan Evaporation, 1077

Development and Application of a Phosphorus Model for a Shallow Oxbow Lake, 753

Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

New Life for Onondaga Lake, 2014

Stochastic Optimization of the Highland Lakes System in Texas, 1807

Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099

Laminar flow

Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611

Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772

Laminates

Bond Behavior of Near-Surface Mounted CFRP Laminate Strips under Monotonic and Cyclic Loading, 218

Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575

Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560

Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526

SUBJECT INDEX

Lattices

- Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminate Systems, 232
- Functionally Graded Stitched Laminates: Illustration on the Example of a Double Cantilever Beam, 78
- Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234
- Nine-Node Resultant-Stress Shell Element for Free Vibration and Large Deflection of Composite Laminates, 69
- Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermomechanical Loads, 548
- System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521
- Thermomechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels, 448
- Land management**
- The Place of Fire, 1932
- Land reclamation**
- Designed for Dry Feet: Flood Protection and Land Reclamation in the Netherlands, 2059
- Liquefaction, Cyclic Mobility, and Failure of Silt, 845
- Land usage**
- Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input — Output Model, 1720
- Market Disequilibrium and Urban Land Shortages: Analysis of Policy and Patterns in Hong Kong, 1780
- Satellite Monitoring of Urban Spatial Growth in the Amman Area, Jordan, 1796
- Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750
- Landfills**
- Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607
- Design Considerations for Lysimeters Used to Evaluate Alternative Earthen Final Covers, 919
- Effect of Gas on Pore Pressures in Wet Landfills, 829
- Estimate of Landfill Settlements due to Mechanical and Decompositional Processes, 837
- Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671
- Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869
- Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906
- Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859
- Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953
- Modeling of Settlement in Saturated and Unsaturated Municipal Landfills, 39
- Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686
- Physical Response of Geomembrane Wrinkles Overlaying Compacted Clay, 902
- Seismic Response of a Composite Landfill Cover, 819
- Strategic Decision Analysis for Selection of Landfill Sites, 1652
- Unit Weight of Municipal Solid Waste, 893

Landscaping

- Developing Knowledge Landscapes through Project-Based Learning, 1416

Landslides

- Movement of Finite Amplitude Sediment Accumulations, 1003
- One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977

Laplace transform

- Laplace Boundary Element Model for the Thermoelastic Consolidation of Multilayered Media, 25

Lasers

- Use of Fresnel Enantiomorphic Diffraction in Surveying Laser Methods, 1650

Lateral displacement

- Lateral Distribution of Mixed Traffic on Two-Lane Roads, 1728
- Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922
- Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243

Lateral loads

- Analytical Solution for Piles Supporting Combined Lateral Loads, 899
- Cellular Automata Model for Predicting the Failure Pattern of Laterally Loaded Masonry Wall Panels, 276
- Cyclic Lateral Load Behavior of a Pile Cap and Backfill, 883
- Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611
- Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847
- Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122
- Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820
- Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901
- Lateral Response Evaluation of Single Piles Using Inclinator Data, 923
- Nonconstrained Flagpole Design Formula, 1454
- Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910
- Raked Piles — Virtues and Drawbacks, 852

Lateral pressure

- Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982
- Design of Window Glass for Lateral Pressures, 95
- Passive Earth Pressure Mobilization during Cyclic Loading, 884

Lateral stress

- Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782
- Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783

Lattices

- Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350

Multiphase/Multidomain Computations using Continuum and Lattice — Boltzmann Methods, 84
Shape Selection for Lattice Structures, 1608

Layered soils

Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916
Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105
Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
Investigation of Foundation Vibrations Resting on a Layered Soil System, 789
Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910
Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834

Leaching

Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869
Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273
Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 665
Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654
TCLP Heavy Metal Leaching of Personal Computer Components, 638
Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738

Lead

Advanced Oxidation for Treatment of Aqueous Extracts from EDTA Extraction of Pb and Zn Contaminated Soil, 740
Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641
Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687
Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Leadership

Assessment with 360° Evaluations of Leadership Behavior in Construction Project Managers, 1246
Emotional Intelligence and Leadership Behavior in Construction Executives, 1251
Influences Impacting Leadership Development, 1245
Measurement Design Is an Opportunity to Learn, 1917
Summary Report: Leading the Way as Full Diversity Partners — A Senior Executive Workshop on Critical Skills for Courageous Leaders, 1905
Vaporizing the Gathering Storm, 2005

Leakage

Deflection Protection, 2032
Design Errors: Inefficiency or Carelessness of Designer?, 1383
Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100
Range of Validity of the Transient Damping Leakage Detection Method, 1025

Vapor Leak Detection for an Underground Storage Tank System, 703

Lean construction

Lean Construction: From Theory to Implementation, 1256

Least squares method

Coordinate Transformation between Two Geodetic Datums of Taiwan by Least-Squares Collocation, 1649
Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655
Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Left-turns

Estimation of Uniform Delay of Permitted Left Turns from Exclusive Turn Lanes, 1741
Geometric Models to Calculate Left-Turn Sight Distance for Signalized Intersections on Horizontal Curves, 1738
Upstream Signalized Crossover Intersection: An Unconventional Intersection Scheme, 1763

Legal factors

Alliancing in Australia — No-Litigation Contracts: A Tautology?, 1414
Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415
Emerging Legal Risks for Construction Management Professionals, 1914
Evaluation of Legal Risks for E-Commerce in Construction, 1438
Legal Challenge to a Best-Value Procurement System, 1906
Legal Consequences of Damages to Underground Facilities by Horizontal Directional Drilling, 1437
Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Case Study, 1413

Legislation

Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427

Leveling

Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663
Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654
Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655
Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643
Precise Height Determination using Leap-Frog Trigonometric Leveling, 1657
Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640

Liability

Characteristics of Contractor's Liabilities for Defects and Defective Work in Korean Public Projects, 1422

Life cycle cost

Building Integration Solutions, 2053

SUBJECT INDEX

- Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415
- Impact of Quality on Building Costs, 1157
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620
- Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318
- Life cycles**
- Example of a Hybrid Life-Cycle Assessment of Construction Processes, 1158
- Latent Building Defects: Causes and Design Strategies to Prevent Them, 1386
- Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138
- Probability-Based Bridge Network Performance Evaluation, 167
- Lifeline systems**
- Hedgehog and Fox Strategies for Reducing Risks in Infrastructure Systems, 1935
- Hurricane Katrina: Performance of Transportation Systems, 2074
- Light, artificial**
- Lighting Requirements for Nighttime Highway Construction, 331
- Light, natural**
- Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Lightweight concrete**
- Lightweight Shotcrete Canoe: Use of Viscosity Modifying Admixture and Acetone as Artificial Paste, 1300
- Strength of Lightweight Glass Aggregate Concrete, 1343
- Lime**
- Assessing the Carbonation Behavior of Cementitious Materials, 1351
- Compaction Delay Effects on Properties of Lime-Treated Soil, 1287
- Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280
- Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273
- Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600
- Physico-Chemical Changes in Clay Caused by Ion Migration from Lime Piles, 1281
- Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808
- Stabilization of Arsenic-Bearing Sludges using Lime, 1276
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263
- Limit analysis**
- Numerical Analysis of T-Bar Penetration in Soft Clay, 53

Liquefaction

- Limit equilibrium**
- Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921
- General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909
- Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30
- Limit states**
- Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888
- Limit-State Curve of Base-Course Material and Its Relevance for Resilient Modulus Testing, 795
- Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397
- Resistance Factors for Use in Shallow Foundation LRFD, 889
- Linear analysis**
- Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46
- Linear systems**
- Effect of Internal Moment Release on the Eigenfrequencies of Combined Linear Systems, 319
- Liners**
- Design of Compacted Lateritic Soil Liners and Covers, 798
- Linings**
- Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871
- Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936
- Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953
- Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686
- Physical Response of Geomembrane Wrinkles Overlaying Compacted Clay, 902
- Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534
- Liquefaction**
- Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885
- CPT-Based Probabilistic and Deterministic Assessment of in Situ Seismic Soil Liquefaction Potential, 873
- Critical Flotation Density of Pipelines in Soils Liquefied by Waves and Density of Liquefied Soils, 1879
- Degree of Saturation and Liquefaction Resistances of Sand Improved with Sand Compaction Pile, 803
- Development of Real-Time Safety Control System for Urban Gas Supply Network, 801
- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582
- First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809
- Guidelines for Pipeline On-Bottom Stability on Liquefied Noncohesive Seabeds, 1883

How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790

Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878

Laboratory Study of Liquefaction due to Wave-Seabed Interaction, 856

Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884

Liquefaction around Pipelines under Waves, 1880

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844

Liquefaction Phenomena underneath Marine Gravity Structures Subjected to Wave Loads, 1885

Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797

Liquefaction Susceptibility Criteria for Silts and Clays, 908

Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922

Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843

Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886

Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905

Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881

Physics of Liquefaction Phenomena around Marine Structures, 1877

Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope, 897

Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793

Soil-Pile Response to Blast-Induced Lateral Spreading. II: Analysis and Assessment of the p - y Method, 794

Stability of Submarine Pipelines on Liquefied Seabeds, 1878

Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10

Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26

Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782

Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783

Sudden Failure of a Heavily Loaded Container Pavement, 912

Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46

Unsaturated Soils 2006, 2096

Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917

Litigation

Alliancing in Australia — No-Litigation Contracts: A Tautology?, 1414

Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415

The Effective Mediator, 1435

"Is That Not Horrific?" — or "You Have Been Warned!" *Burchell v. Bullard* and Implications for English Construction Law, 1428

Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429

Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436

Live loads

Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Influence of Parapets and Aspect Ratio on Live-Load Distribution, 123

Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160

Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117

Shear Live-Load Distribution Factors for I-Girder Bridges, 124

Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393

Load and resistance factor design

Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888

Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169

Reliability of Steel Frames Designed with Advanced Analysis, 1465

Resistance Factors for Use in Shallow Foundation LRFD, 889

Load distribution

Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225

Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Influence of Parapets and Aspect Ratio on Live-Load Distribution, 123

Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122

Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913

Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117

Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759

Load factors

Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-05 (CD-ROM), 2076

Real Options by Spreadsheet: Parking Garage Case Example, 1147

Residential Building Loads: Review and Roadmap for the Future, 2083

Resistance Factors for Use in Shallow Foundation LRFD, 889

Load tests

Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814

Cyclic Lateral Load Behavior of a Pile Cap and Backfill, 883

Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204

Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178

Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634

Load Transfer in Rammed Aggregate Piers, 51

Passive Earth Pressure Mobilization during Cyclic Loading, 884

Quality Control Method for Pile Driving, 879

Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142

Load transfer

Load Transfer in Rammed Aggregate Piers, 51

Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Loading rate

Behavior of One-Dimensional Consolidation under Time-Dependent Loading, 480

Effect of Penetration Rate on Penetrometer Resistance in Clay, 887

Loads

Buckling of Simply Supported Rectangular Reissner—Mindlin Plates Subjected to Linearly Varying In-Plane Loading, 491

Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528

Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477

Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841

Preventing Disproportionate Collapse, 1396

Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534

Localization

Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57

Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582

Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533

Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Locks

Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150

Logistics

Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371

Logistic Likelihood Analysis of Mediation Outcomes, 389

Long waves

Maximum Fluid Forces in the Tsunami Runup Zone, 1903

Prediction of Long Forcing Waves for Harbor Agitation Studie, 1871

Well-Balanced Finite-Volume Model for Long-Wave Runup, 1866

Loops

Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520

Losses

Loss Estimation Analysis of Flat-Slab Structures, 1925

Louisiana

Bivariate Flood Frequency Analysis Using the Copula Method, 1086

Hurricane Katrina: Performance of Transportation Systems, 2074

Special Report: The Big Uneasy, 2033

Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979

Lysimeters

Design Considerations for Lysimeters Used to Evaluate Alternative Earthen Final Covers, 919

Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906

Machine foundations

Simplified Model for Vertical Vibrations of Surface Foundations, 838

Magnetic fields

Calibration of Strapdown Magnetometers in Magnetic Field Domain, 68

Dynamic Stability of Ferromagnetic Beam-Plates with Magnetoelastic Interaction and Magnetic Damping in Transverse Magnetic Fields, 476

Maintenance

Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156

Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317

Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802

Impact of Quality on Building Costs, 1157

Key Performance Indicators for Strategic Healthcare Facilities Maintenance, 322

Knowledge Discovery in a Facility Condition Assessment Database using Text Clustering, 1142

Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620

Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089

Using Advanced Inspection Technologies to Support Investments in Maintenance and Repair of Transportation Infrastructure Facilities, 1669

Maintenance costs

Cost-Effectiveness of Railway Infrastructure Renewal Maintenance, 1729

Short- and Long-Term Effects of Element Costs and Failure Costs in Pontis, 166

Malaysia

Delay Mitigation in the Malaysian Construction Industry, 300

Management

Management

- Impact of Property Management Services on Affordable Housing Residents in Atlanta, Georgia, 1387
- Influence of the National Performance Review on Supervisors in Government Organizations, 1920

Managers

- Assessment with 360° Evaluations of Leadership Behavior in Construction Project Managers, 1246
- Influences Impacting Leadership Development, 1245
- Sequence Planning for Electrical Construction, 324

Manholes

- Experimental Study of Surcharged Flow at Combining Sewer Junctions, 1058

Manufactured homes

- Incomplete Information Analysis for the Origin-Destination Survey Table, 1794
- Supply Chain Analysis and Modeling for the Manufactured Housing Industry, 1771
- Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797

Manufacturing

- Supply Chain Analysis and Modeling for the Manufactured Housing Industry, 1771

Mapping

- Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408
- Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663
- Detection of Illegal Dump Deposit with GPR: Case Study, 1955
- Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922
- Flood Estimation by GIUH-Based Clark and Nash Models, 1124
- Framework to Support the Representations of Semantic Mappings for a Hybrid Integration Strategy, 268
- Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
- From a NEXRAD Rainfall Map to a Flood Inundation Map, 1074
- HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928
- HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929
- Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844
- Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Solving an Inverse Problem of a Meridian Arc in Terms of Computer Algebra System, 1641
- Topological Mapping for Tension Structures, 1535

Markov chains

- Constriction Size of Geotextile Filters, 2
- Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678

2006 ASCE TRANSACTIONS

- Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802

- Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097

- Performance Prediction of Bridge Deck Systems using Markov Chains, 1378

Markov process

- Markov-Based Optimization Model for Building Facilities Management, 407

Maryland

- Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751

Masonry

- Analyses of a Two-Story Unreinforced Masonry Building, 1505
- Assessment of Potential Seismic Damage to Residential Unreinforced Masonry Buildings in Northern Illinois, 1979
- Cellular Automata Model for Predicting the Failure Pattern of Laterally Loaded Masonry Wall Panels, 276
- Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341
- Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix—Grid Composites, 210
- Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602
- Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361
- Recommendations for Seismic Evaluation and Retrofit of Low-Rise URM Structures, 1506
- Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105
- Strength and Elastic Properties of Stabilized Mud Block Masonry using Cement-Soil Mortars, 1313
- Structural Monitoring and Integrity Assessment of Medieval Towers, 1605
- Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319

Mass

- Construction of Customized Mass-Stiffness Pairs using Templates, 80
- Diagnostic Curve for Estimating Soil Dispersivity and Instantaneously Injected Mass, 1194
- Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054

Mass transfer

- Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443
- Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776

SUBJECT INDEX

Measurement

- Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
- Massachusetts**
- Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639
- Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710
- Material failure**
- Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
- Material properties**
- Application of Graded Finite Elements for Asphalt Pavements, 459
- Constitutive Model for Rockfill Materials and Determination of Material Constants, 35
- Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849
- Determination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74
- Early Hydration Process of Portland Cement Paste by Electrical Measurement, 1272
- Effects of Silica Fume and Rice Husk Ash on the Properties of Heavyweight Concrete, 1301
- Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560
- Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302
- Exploring Concrete Slump Model using Artificial Neural Networks, 266
- "Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360
- Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440
- Identification and Interpretation of Microplane Material Laws, 465
- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305
- Material-Related Aspects of Asphalt Recycling — State-of-the-Art, 1270
- New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535
- Study of In Situ Pavement Material Properties Determined from FWD Testing, 1745
- Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738
- Material tests**
- Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672
- Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627
- Materials**
- Simulation of Multidimensional Binary Random Fields with Application to Modeling of Two-Phase Random Media, 496
- Mathematical models**
- Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940
- Deformation of Pores in Viscoplastic Soil Material, 22
- Determining Free Flight Performance by Surveying Engineering Techniques, 1653
- Determining the Desired Amount of Parking using Game Theory, 1778
- Earthquake Hydrodynamic Pressure on Dams, 1046
- Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115
- Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758
- Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
- Explicit Expression for Beach Response to Non-Stationary Forcing near a Groynes, 1867
- Flutter Phenomenon in Aeroelasticity and its Mathematical Analysis, 58
- Green's Function of the Linearized de Saint-Venant Equations, 447
- Hydrologic Modeling Inventory: Cooperative Research Effort, 1175
- Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681
- Modeling of Settlement in Saturated and Unsaturated Municipal Landfills, 39
- Multilaminar Macromodel for Concrete Masonry: Formulation and Verification, 1635
- PCB Volatilization from Sediments, 594
- Physical Analog of the Linear Reservoir, 1089
- Temporal Variation in Consumer Spatial Behavior in Shopping Streets, 1792
- Mathematics**
- Elevation-Dependent Management of the Edwards Aquifer: Linked Mathematical and Dynamic Programming Approach, 1836
- General Validity of Conductivity Means in Unsaturated Flow Models, 1125
- New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571
- Solving an Inverse Problem of a Meridian Arc in Terms of Computer Algebra System, 1641
- Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017
- Meandering streams**
- Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061
- Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033
- Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031
- Measurement**
- Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047
- Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104
- Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656
- Assessment of Soil Moisture Dynamics of the Nebraska Sandhills using Long-Term Measurements and a Hydrology Model, 1216

- Automated Measurement of Railway Ballast Angularity, 1331
- Challenges in Predicting Power Output from Offshore Wind Farms, 430
- Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742
- Damage Identification Based on Dead Load Redistribution: Effect of Measurement Error, 1563
- Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990
- Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654
- Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725
- Dioxin in Storm-Water Runoff in Houston, Texas, 770
- Double-Pass Photovoltaic-Thermal Solar Air Collector with Compound Parabolic Concentrator and Fins, 433
- Early Hydration Process of Portland Cement Paste by Electrical Measurement, 1272
- Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181
- Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561
- Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667
- Impact of Specimen Geometry on Dynamic Modulus Measurement Test Setup, 1314
- Interpretation of Impact Penetration Measurements in Soft Clays, 848
- Measurement Design Is an Opportunity to Learn, 1917
- Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Measuring System for Cracks in Concrete using Multitemporal Images, 1651
- Method for Measurement of Canopy Interception under Sprinkler Irrigation, 1185
- Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705
- Normalizing the CPT for Overburden Stress, 812
- Performance of Slit Weir, 1029
- Polychromatic UV Fluence Measurement using Chemical Actinometry, Biosimetry, and Mathematical Techniques, 693
- Probability Density Functions in the Analysis of Hydraulic Conductivity Data, 1116
- Quantitative Measurement of Successful Performance from the Project Manager's Perspective, 415
- Measuring instruments**
- Historic Discharge Measurements in Three Rhine Branches, 945
- Mechanical properties**
- Behavior of High Strength Structural Steel at Elevated Temperatures, 1631
- Detrimination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74
- Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487
- Geomechanics II — Testing, Modeling, and Simulation, 2069

- High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349
- Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73
- Mechanical Properties and Environmental Assessment of Mortars Containing Metallic Oxides, 706
- Property Modification Factors for Seismically Isolated Bridges, 140
- Mechanical systems**
- Prototype Tool for Mechanical, Electrical, and Plumbing Coordination, 249
- Mechanics**
- Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
- Microvoid Damage Model with Material Dilation for Ductile Fracture, 546
- Membranes**
- Continuous Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor, 617
- Mechanics and Test Study of Two-Dimensional Flexible Membranes, 92
- Membrane Analysis and Minimum Weight Design of Submerged Spherical Domes, 1463
- Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892
- Modeling Water Movement and Flux from Membrane Pervaporation Systems for Wastewater Microirrigation, 714
- Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757
- Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727
- Memoirs of deceased members**
- Arnold, Maurice; ASCE Member, 2098
- Kulchin, Larry; ASCE Member, 2099
- Mercury**
- Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961
- Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621
- Sulfur Impregnation on Activated Carbon Fibers through H₂S Oxidation for Vapor Phase Mercury Removal, 615
- Mesh generation**
- Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82
- Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062
- Metals**
- Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483
- Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 665
- Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654
- New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100

SUBJECT INDEX

Mixing

Methane

Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607

Methodology

Bivariate Flood Frequency Analysis Using the Copula Method, 1086

Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784

Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732

Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274

Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676

Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Mexico

Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045

Performance and Analyses of Mechanically Stabilized Earth Walls in the Tecoman, Mexico Earthquake, 1395

Microbes

Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623

Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666

Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667

Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905

Micromechanics

Anisotropic Nonlinear Elastic Model for Particulate Materials, 874

Deformation of Pores in Viscoplastic Soil Material, 22

Effective Medium Theories for Multicomponent Porcelain Composites, 486

Effective Moduli of Coated Particulate Composites with BCC Structure at High Concentration, 525

Finite-Element Analysis of Hot Mix Asphalt Microstructure using Effective Local Material Properties and Strain Gradient Elasticity, 451

Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37

Input Parameters of Discrete Element Methods, 506

Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785

A Stochastic Transformation Field Theory for Heterogeneous Materials, 564

Microscopy

Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713

Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785

Role of an Amorphous Silica in Portland Cement Concrete, 1348

Microstructure

Experimental Study of Macro- and Microbehavior of Natural Diatomite, 833

Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

Microstructure and Compactive Instabilities of a Stabilized Residue, 1290

Role of an Amorphous Silica in Portland Cement Concrete, 1348

Thermomechanical Framework for the Constitutive Modeling of Asphalt Concrete, 15

Microtunneling

Soil Penetration Modeling in Microtunneling Projects, 347

Middle East

3D Model Application to Study Residual Flow in the Arabian Gulf, 1891

Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902

Mine wastes

Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Treatment of Acid Rock Drainage in a Meromictic Mine Pit Lake, 640

Mineralogy

Role of an Amorphous Silica in Portland Cement Concrete, 1348

Minimum weight design

Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444

Membrane Analysis and Minimum Weight Design of Submerged Spherical Domes, 1463

Mining

Protection Measures against Mine Subsidence Taken at a Building Site, 1278

Minnesota

Landmark Library, 2021

Minority groups

Development of New Faculty: Summary of the NSF-CMS WEE Workshop, 1418

Missiles

Large Wind Missile Impact Capacity of Residential and Light Commercial Buildings, 1990

Mississippi

Hurricane Katrina: Performance of Transportation Systems, 2074

Missouri

Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786

Creating a New School of Computer Science and Engineering in Kansas City, 1912

Mixed waste

Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737

Mixing

Asphalt Mix Design and Construction: Past, Present, and Future, 2050

- Commercial Odor-Reducing Agents for Minimizing the Odor Potential of Asphalt Binders, 645
- Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774
- Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268
- Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. II: Experimental Results and Quality Assurance, 1269
- Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061
- Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279
- Multiple Tandem Jets in Cross-Flow, 1027

Mixtures

- Exploring Concrete Slump Model using Artificial Neural Networks, 266
- Fatigue and Healing of Asphalt Mixtures: Discriminate Analysis of Fatigue Curves, 1680
- Freezing - Thawing Model for Soils and Rocks, 1286
- Material-Related Aspects of Asphalt Recycling - State-of-the-Art, 1270
- Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497

Mobility

- Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247

Modal analysis

- Cross-Modal STrain Energy Method for Estimating Damage Severity, 477
- Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533
- Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162
- Structural Damage Detection via Modal Data with Genetic Algorithms, 1586
- System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607

Model analysis

- Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609
- Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225
- Measured and Predicted Herbicide Removal by Mulch, 702

Model studies

- Disaster Recovery System Model with E-Government Case Study, 1937
- Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations - Modeling Study, 589
- Marine Wastewater Discharges from Multiport Diffusers. III: Stratified Stationary Water, 971

- Marine Wastewater Discharges from Multiport Diffusers. IV: Stratified Flowing Water, 972

Model tests

- Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110
- Dynamic Uplift Scenarios for Floating Ice, 182
- Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Model verification

- Assessing the Hydrologic Performance of Best Management Practices, 1101
- Validation of the Hydrological Processes in a Hydrological Model, 1117

Models

- Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047
- Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101
- Behavior and Modeling of Fiber Reinforced Polymer-Confined Concrete, 9
- Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227
- Catastrophe Risk Models for Wildfires in the Wildland - Urban Interface: What Insurers Need, 1938
- CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799
- Challenges in Predicting Power Output from Offshore Wind Farms, 430
- Condition Rating Model for Underground Infrastructure Sustainable Water Mains, 1376
- Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266
- Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412
- Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698
- Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264
- Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227
- Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268
- Effect of Contact Force Models on Granular Flow Dynamics, 566
- Entropy Models of Trip Distribution, 1774
- Exploring Concrete Slump Model using Artificial Neural Networks, 266
- Freezing - Thawing Model for Soils and Rocks, 1286
- Geomechanics II - Testing, Modeling, and Simulation, 2069
- Growth and Decay of Estuary Ice Cover, 184
- HAZUS - Its Development and Its Future, 1926
- HAZUS Earthquake Loss Estimation Methods, 1927
- HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928
- HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929
- HAZUS-MH Hurricane Model Methodology. I: Hurricane Hazard, Terrain, and Wind Load Modeling, 1930

SUBJECT INDEX

HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931

Identification and Modeling of Permanent Deformations of Asphalt Concrete, 458

Incomplete Information Analysis for the Origin-Destination Survey Table, 1794

Material Spatial Variability and Slope Stability for Weak Rock Masses, 796

Methodology for Ranking the Elements of Water-Supply Networks, 1160

Microvoid Damage Model with Material Dilation for Ductile Fracture, 546

Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703

Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401

Modeling of Functional Construction Requirements for Constructability Analysis, 418

Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70

Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808

Multi-Agent Framework for General-Purpose Situational Simulations in the Construction Management Domain, 261

Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572

Optimal Design in the Presence of Modeling Uncertainties, 77

Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217

Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Simulating Activated Sludge System by Simple-to-Advanced Models, 587

Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507

Soil and Rock Behavior and Modeling, 2088

Supply Chain Analysis and Modeling for the Manufactured Housing Industry, 1771

Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797

Unified Sand Model Based on the Critical State and Generalized Plasticity, 580

Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062

Watershed and River Systems Management Program: Overview of Capabilities, 1174

Wave Forcing of Small Floating Bodies, 1874

Monitoring

Moisture

Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44

Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101

Bitumen Surface Energy Characterization Using a Contact Angle Approach, 1350

Considerations from the Design of Intercepting Drainage for Collecting Water from Seep Areas, 1231

Design of Compacted Lateritic Soil Liners and Covers, 798

Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518

Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871

Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302

Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinylster Binder, 1340

Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192

Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298

Rational Approach for Base Type Selection, 1746

Moisture content

Modified Kostikov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230

Moment distribution

Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160

Monitoring

Ambient Vibration Monitoring of a Highway Bridge Undergoing a Destructive Test, 163

Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724

Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798

Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735

Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825

CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191

Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834

Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Damage Identification Based on Dead Load Redistribution: Methodology, 1562

Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179

Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712

Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334

Identification of Contaminant Sources in Water Distribution Systems using Simulation — Optimization Method: Case Study, 1827

Monitoring

- Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469
- Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- In-Service Durability Performance of Water Tanks, 1377
- In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175
- Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256
- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- Long-Term Durability of State Street Bridge on Interstate 80, 125
- Long-Term Structural Health Monitoring of the San Ysidro Bridge, 1365
- Model for Automated Monitoring of Fall Hazards in Building Construction, 360
- Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171
- Natural Attenuation Assessment using Mineral Data, 1963
- Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993
- Predictability of Annual Sediment Loads based on Flood Events, 1108
- Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758
- Structural Performance Monitoring of an Unstabilized Fly Ash-Based Road Subbase, 1769
- System for In-Service Strain Monitoring of Ordinary Bridges, 170
- Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 762
- Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607
- Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385
- Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275
- Monte Carlo method**
- Applying Method of Moments to Model Reliability of Pavements Infrastructure, 1706
- Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845
- Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830
- Evaluation of Karhunen-Loève, Spectral, and Sampling Representations for Stochastic Processes, 453
- Galerkin Solution for Linear Stochastic Algebraic Equations, 570
- Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036
- Material Spatial Variability and Slope Stability for Weak Rock Masses, 796
- Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911

2006 ASCE TRANSACTIONS

- Reliability of Steel Frames Designed with Advanced Analysis, 1465
- Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54
- Moon**
- Moondust and More, 2010
- Moondust and More, 2011
- Structural Design of a Lunar Habitat, 71
- Mooring**
- Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501
- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Experimental Study on the Hydrodynamics of a Floating, Production, Storage, and Offloading System, 1861
- Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898
- Morphology**
- Coastal Dynamics 2005 -- State of the Practice, 2055
- Mortars**
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Mechanical Properties and Environmental Assessment of Mortars Containing Metallic Oxides, 706
- Strength and Elastic Properties of Stabilized Mud Block Masonry using Cement-Soil Mortars, 1313
- Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265
- Motion**
- Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468
- New Approach to Mission Design Based on the Fundamental Equations of Motion, 65
- Viscous Effect on the Roll Motion of a Rectangular Structure, 454
- Motivation**
- Motivational Climate of Construction Apprentice, 341
- Proposed Subcontractor-Based Employee Motivational Model, 303
- Mountain streams**
- New Facility to Study River Abrasion Processes, 994
- Multiple objective analysis**
- Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444
- Multiple purpose structures**
- Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244
- Municipal engineering**
- Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Municipal wastes**
- Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Effect of Gas on Pore Pressures in Wet Landfills, 829
- Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670

SUBJECT INDEX

- Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671
- Integration of Processes to Treat Wastewater and Source-Separated Urine, 620
- Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654
- Organic Hazardous Substances in Graywater from Swedish Households, 700
- Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699
- Start at the Source, 2001
- Unit Weight of Municipal Solid Waste, 893
- Municipal water**
- Delay between Sensing and Response in Water Contamination Events, 1145
- Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Natural frequency**
- Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 326
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Investigation of Foundation Vibrations Resting on a Layered Soil System, 789
- Natural Frequencies of a Structure with Bounded Uncertainty, 578
- Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72
- System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521
- Natural gas**
- Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714
- Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771
- Optimization of Investments in Natural Gas Distribution Networks, 425
- Navigation**
- Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150
- Nearshore**
- Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011
- Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896
- Nearshore Wave Modeling with High-Order Boussinesq-Type Equations, 1887
- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889
- Nearshore circulation**
- Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900
- Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457
- Nebraska**
- Assessment of Soil Moisture Dynamics of the Nebraska Sandhills using Long-Term Measurements and a Hydrology Model, 1216
- Overture to Omaha, 2024

Neural networks

Negotiations

- A Study of Styles and Outcomes in Construction Dispute Negotiation, 368
- Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436

Nepal

- Design Errors: Inefficiency or Carelessness of Designer?, 1383

Netherlands

- Designed for Dry Feet: Flood Protection and Land Reclamation in the Netherlands, 2059
- Historic Discharge Measurements in Three Rhine Branches, 945

Network analysis

- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832

Network design

- Novel Cellular Automata Approach to Optimal Water Distribution Network Design, 250
- Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667
- Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676

Networks

- Application of Artificial Neural Network Model in Estimation of Wave Spectra, 1894
- Base Station Establishment using Multiple Global Positioning Satellite Stations and Free Net Approach, 1644
- Bayesian Network for E/M Impedance-Based Damage Identification, 267
- Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412
- Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737
- Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
- Optimization of Investments in Natural Gas Distribution Networks, 425
- Probability-Based Bridge Network Performance Evaluation, 167
- Robustness Analysis of Two-Dimensional Networks, 1664
- Simulated Annealing - Genetic Algorithm for Transit Network Optimization, 251
- Solution for Water Distribution Systems under Pressure-Deficient Conditions, 1818

Neural networks

- Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566
- Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567
- Analysis of Strength of Concrete using Design of Experiments and Neural Networks, 1329
- ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
- Application of Artificial Neural Network Model in Estimation of Wave Spectra, 1894
- Application of Support Vector Machine in Lake Water Level Prediction, 1091
- Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090

Neural networks

- Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411
- Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122
- Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Empirical Approach for Determining Ultimate FRP Strain in FRP-Strengthened Concrete Beams, 201
- Exploring Concrete Slump Model using Artificial Neural Networks, 266
- General Approach for Training Back-Propagation Neural Networks in Vibration Control of Multidegree-of-Freedom Structures, 269
- Modal Seismic Control of Building Frames by Artificial Neural Network, 252
- Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279
- Neural Networks for Estimating the Productivity of Concreting Activities, 353
- Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697
- New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571
- New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572
- Novel Approach to Integration of Numerical Modeling and Field Observations for Deep Excavations, 872
- Optimal Pumping from Skinning Wells, 1118
- Prediction of Concrete Strength using Neural-Expert System, 1311
- Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272
- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- Role of Learning Algorithm in Neural Network-Based Backcalculation of Flexible Pavements, 287
- Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Semidistributed Form of the Tank Model Coupled with Artificial Neural Networks, 1112
- Short-Term Freeway Traffic Flow Prediction: Bayesian Combined Neural Network Approach, 1675
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979
- Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917
- Nevada**
- Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Long-Term Dynamic Modeling Approach to Quantifying Attached Algal Growth and Associated Impacts on Dissolved Oxygen in the Lower Truckee River, Nevada, 739
- Short Circuit, 2041
- New Jersey**
- Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703
- Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716

2006 ASCE TRANSACTIONS

- New Mexico**
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429
- Investigation of Heaving at Holloman Air Force Base, New Mexico, 1370
- Long-Term Structural Health Monitoring of the San Ysidro Bridge, 1365
- New York**
- Battery-Joralemon Street Tunnel, 1374
- Challenges of Underpinning Two Landmark Buildings, 1985
- Completing the Circle, 2023
- Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481
- History and Aesthetics of the Bronx-Whitestone Bridge, 127
- Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163
- Landmark Reinvented, 2007
- Market Fresh, 2019
- Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703
- New Life for Onondaga Lake, 2014
- Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
- Starting Over, 2035
- New York City**
- Battery-Joralemon Street Tunnel, 1374
- Challenges of Underpinning Two Landmark Buildings, 1985
- Completing the Circle, 2023
- Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163
- Landmark Reinvented, 2007
- Market Fresh, 2019
- Starting Over, 2035
- Nigeria**
- Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723
- Construction Delays and Their Causative Factors in Nigeria, 354
- Nighttime construction**
- Lighting Requirements for Nighttime Highway Construction, 331
- Nitrates**
- Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613
- Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721
- Effects of Surface-Bound Fe^{2+} on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658
- Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722

SUBJECT INDEX

Nitrification

- Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669
- Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720
- Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- New Process Design Procedure for Dealing with Variable Trickling Filter Effluent Suspended Solids, 684
- Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732
- Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691
- Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757
- Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727

Nitrogen

- Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Integration of Processes to Treat Wastewater and Source-Separated Urine, 620
- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630

Noise

- Overparameterized Least-Squares Adjustment with Linear Models for Geodetic and Surveying Applications, 1659

Noise control

- Building Integration Solutions, 2053

Nonaqueous phase liquids

- Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599

Nondestructive tests

- Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761
- Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520
- Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172
- Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770
- Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145
- Forensic Engineering (2006), 2066
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316

Nonlinear analysis

- In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175
- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305
- Nondestructive and Laboratory Evaluation of Damage Gradients in Concrete Structure Exposed to Cryogenic Temperatures, 1368
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389
- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Role of Learning Algorithm in Neural Network-Based Backcalculation of Flexible Pavements, 287
- Structural Monitoring and Integrity Assessment of Medieval Towers, 1605
- Sudden Failure of a Heavily Loaded Container Pavement, 912
- Nonlinear analysis**
 - Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609
 - Axisymmetric Nonlinear Stability of a Shallow Conical Shell with a Spherical Cap of Arbitrary Variable Shell Thickness, 555
 - Comparison of Various Procedures for Progressive Collapse Analysis, 1402
 - Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
 - Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447
 - Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543
 - Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548
 - Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479
 - Generalized Bouc — Wen Model for Highly Asymmetric Hysteresis, 495
 - Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440
 - Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470
 - Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471
 - Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
 - New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535
 - New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460
 - Nonlinear Analysis of Reinforced Concrete Beam — Columns with Bond-Slip, 559
 - Nonlinear Analytical Solution for Cable Truss, 446
 - Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536
 - Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198
 - Plastic Hinge Integration Methods for Force-Based Beam — Column Elements, 1462

Nonlinear analysis

- Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407
- Seismic Design Optimization of Steel Building Frameworks, 1466
- Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877
- Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599
- Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1554
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1555
- Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46
- Topological Mapping for Tension Structures, 1535
- Nonlinear differential equations**
- Generalized Bouc – Wen Model for Highly Asymmetric Hysteresis, 495
- Postbuckling of Beam Subjected to Intermediate Lower Force, 436
- Nonlinear response**
- Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381
- Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847
- Dynamic Behavior of Nonlinear Cable System. IV, 464
- Equivalent Linearization for the Nonstationary Response Analysis of Nonlinear Systems with Random Parameters, 481
- Fully Nonhydrostatic Modeling of Surface Waves, 479
- Generalized Bouc – Wen Model for Highly Asymmetric Hysteresis, 495
- Multiscale Nonlinear Framework for the Long-Term Behavior of Layered Composite Structures, 577
- New Measure for Severity of Near-Source Seismic Ground Motion, 1636
- Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63
- Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermomechanical Loads, 548
- Observations on the Reliability of Alternative Multiple-Mode Pushover Analysis Methods, 1485
- Property Modification Factors for Seismically Isolated Bridges, 140
- Response of Nonstructural Components in Structures with Damping Systems, 1547
- Nonlinear systems**
- Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501
- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Modified K-NN Model for Stochastic Streamflow Simulation, 1110
- Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504

2006 ASCE TRANSACTIONS

Nonpoint pollution

- Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098
- Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592
- Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801
- Study of Total Maximum Daily Load and Nonpoint Source Pollution Control Strategies for Reservoir Watershed, 1954
- Uncertainty Analysis for Coupled Watershed and Water Quality Modeling Systems, 1838
- Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099

Nonstructural elements

- Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527
- Response of Nonstructural Components in Structures with Damping Systems, 1547
- Seismic Design Forces. I: Rigid Nonstructural Components, 1589
- Seismic Design Forces. II: Flexible Nonstructural Components, 1590

Nonuniform flow

- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026

North America

- Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737
- Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187

North Carolina

- Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232
- Sediment Transport over Ripples in Oscillatory Flow, 950
- Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142

Norway

- Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618

Notches

- Size Effect on Strength of Quasi — Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558

Nuclear reactors

- Sustainability and Economics of the Advanced High-Temperature Reactor, 432

Nuclear wastes

- Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Numerical analysis

- Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Bond Behavior of Near-Surface Mounted CFRP Laminated Strips under Monotonic and Cyclic Loading, 218

SUBJECT INDEX

Condensed Model Identification and Recovery for Structural Damage Assessment, 1638

Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766

Ground Motion Induced by Train Passage, 455

Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37

The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513

New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42

Numerical Analysis of T-Bar Penetration in Soft Clay, 53

Numerical Calculation of Turbulence Structure in Depth-Varying Unsteady Open-Channel Flows, 999

Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001

Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841

Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461

Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910

Shear Banding in Sandstone: Physical and Numerical Studies, 31

Stability Requirements for Beams in Seismic Steel Moment Frames, 1570

Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000

Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Undrained Bearing Capacity of Square and Rectangular Footings, 27

Numerical models

2D Shallow-Water Model using Unstructured Finite-Volumes Methods, 958

3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954

Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520

Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993

Case Study of an S-Shaped Spillway using Physical and Numerical Models, 1021

Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944

Chebyshev Finite-Spectral Method for 1D Boussinesq-Type Equations, 1876

Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754

Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501

Dam-Break Wave-Front Celerity, 938

DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892

Development and Application of a Phosphorus Model for a Shallow Oxbow Lake, 753

Numerical models

Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900

Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053

Drag Force on Single Piles in Clay Subjected to Surcharge Loading, 20

Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128

Effects of Local Search Algorithms on Groundwater Remediation Optimization using a Self-Adaptive Hybrid Genetic Algorithm, 278

Estuarine and Coastal Modeling — Proceedings of the Ninth International Conference, 2064

Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120

Flow in Compound Channel with Abrupt Floodplain Contraction, 1026

General Validity of Conductivity Means in Unsaturated Flow Models, 1125

Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837

Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030

Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040

Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606

Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644

Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868

Material Spatial Variability and Slope Stability for Weak Rock Masses, 796

Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467

Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389

Novel Approach to Integration of Numerical Modeling and Field Observations for Deep Excavations, 872

Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841

Numerical Model for the Analysis of Unbonded Prestressed Members, 1442

Numerical Model of Saltwater Transport toward a Pumping Well, 1103

Numerical Modeling and Analysis of Solute Velocity and Macrodispersion for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104

Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180

Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881

Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960

- Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974
- Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
- One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977
- Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255
- Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068
- Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476

Nutrient loads

- Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232
- Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644
- Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625

Nutrients

- Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715
- Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591
- Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Integration of Processes to Treat Wastewater and Source-Separated Urine, 620
- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- Tracer Studies in Laboratory Beach Simulating Tidal Influences, 668

Occupational safety

- Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320
- Comparative Injury and Fatality Risk Analysis of Building Trades, 342
- Owner's Role in Construction Safety, 304
- Owner's Role in Construction Safety: Guidance Model, 305
- Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628
- Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393
- Safety Hazard Identification on Construction Projects, 308
- Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351

- Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974

Ocean bottom

- Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898

Ocean engineering

- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889

Ocean waves

- Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421

Oceanography

- Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898

Oceans

- Marine Wastewater Discharges from Multiport Diffusers. IV: Stratified Flowing Water, 972

Odors

- Commercial Odor-Reducing Agents for Minimizing the Odor Potential of Asphalt Binders, 645
- Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Statistical Modeling to Forecast Odor Levels of Biosolids Applied to Reuse Sites, 652

Offshore construction

- Considerations for Storm-Water Outfalls off Exposed Coasts, 1233

Offshore pipelines

- Improved Analysis Method for Wave-Induced Pipeline Stability on Sandy Seabed, 1727

Offshore structures

- Challenges in Predicting Power Output from Offshore Wind Farms, 430
- Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545
- Discriminating Modes of Shoreline Response to Offshore-Detached Structures, 1873
- Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886
- Fluid-Soil-Structure Interaction in Liquefaction around a Cyclically Moving Cylinder, 1882
- The Gulf of Mexico Decommissioning Market, 369
- Liquefaction Phenomena underneath Marine Gravity Structures Subjected to Wave Loads, 1885
- Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881

- Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313

- Offshore Technology in Civil Engineering: Hall of Fame Papers from the Early Years, 2077

- Physics of Liquefaction Phenomena around Marine Structures, 1877

Ohio

- Accelerating the Construction of a Highway Bridge in Ohio, 1980
- Geometry Lesson, 2012
- Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627

SUBJECT INDEX

Oil spills

- Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology, 661
- Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723
- Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264
- Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591
- Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
- Tracer Studies in Laboratory Beach Simulating Tidal Influences, 668

Oils

- Oil and Grease Measurement in Highway Runoff — Sampling Time and Event Mean Concentrations, 629
- Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095
- Transport of Edible Oil Emulsions in Clayey Sands: 3D Sandbox Results and Model Validation, 1096
- Vermiculite Filtration for Removal of Oil from Water, 1957

Oklahoma

- Catastrophe-Induced Destruction and Reconstruction, 1924
- Lessons Learned from an Emergency Bridge Replacement Project, 321

- Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400

Open channel flow

- Asymmetric Flow in Symmetric Supercritical Expansions, 953
- Classifying River Waves by the Saint Venant Equations Decoupled in the Laplacian Frequency Domain, 998
- Flow Resistance and Momentum Flux in Compound Open Channels, 1059
- Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
- Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987
- Kinematic Wave Parameters for Trapezoidal and Rectangular Channels, 1088
- Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
- Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221
- Multilayer Averaged and Moment Equations for One-Dimensional Open-Channel Flows, 1013
- New Method for Estimation of Discharge, 1035
- Numerical Calculation of Turbulence Structure in Depth-Varying Unsteady Open-Channel Flows, 999
- Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055
- Parallel Walls as an Abutment Scour Countermeasure, 982
- Particle Image Velocity Measurements of Unidirectional Hydraulic Jumps, 1060
- Performance of Slit Weir, 1029
- Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180

- Scale Independent Linear Behavior of Alluvial Channel Flow, 1002

- VOF Model for Simulation of a Free Overfall in Trapezoidal Channels, 1212

Open channels

- Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
- Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Flow Resistance and Momentum Flux in Compound Open Channels, 1059
- Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996
- Optimal Design of Open Channel Section Incorporating Critical Flow Condition, 1223
- Scour Countermeasures for Wing-Wall Abutments, 988
- Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957

Openings

- Lateral Stiffness of Shear Walls with Openings, 1621

Operating costs

- Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415
- Novel Cellular Automata Approach to Optimal Water Distribution Network Design, 250

Optimization

- Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156
- Alternative Decision Making in Water Distribution Network with NSGA-II, 1813
- Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624
- Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798
- Calibrating Holistic Water Resources — Economic Models, 1844
- Can Reservoir Storage Be Uneconomically Large?, 1854
- Complex Edge Stiffeners for Thin-Walled Members, 1459
- Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290
- Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828
- Contingency Planning in Project Selection using Multi-objective Optimization and Chance Constraints, 1148
- Damage Identification Based on Dead Load Redistribution: Methodology, 1562
- Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678
- Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
- Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845
- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732

Optimization

Optimization

- Development of Optimal and Physically Realizable Unit Hydrograph, 1134
- Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625
- Economic-Based Optimization of Panama Canal System Operations, 1852
- Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560
- Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data, 1135
- Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222
- Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837
- Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708
- Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805
- Identification of Groundwater Pollution Sources using GA-Based Linked Simulation Optimization Model, 1081
- Improving Full-Scale Transmission Tower Design through Topology and Shape Optimization, 1518
- Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350
- Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66
- Internal Forces for Statically Indeterminate Structures having Different Moduli in Tension and Compression, 508
- Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402
- MACROS: Multiobjective Automated Construction Resource Optimization System, 1252
- Markov-Based Optimization Model for Building Facilities Management, 407
- Minimizing Construction-Related Hazards in Airport Expansion Projects, 344
- Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826
- Model for Three-Dimensional Highway Alignment, 1764
- Multiobjective Plan Selection Optimization for Traffic Responsive Control, 1702
- Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536
- Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055
- Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686
- Optimal Instantaneous Unit Hydrograph from Multistorm Data, 1198
- Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178
- Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286
- Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667
- Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649
- Optimization of Investments in Natural Gas Distribution Networks, 425
- Optimization of Water Distribution Networks using Integer Linear Programming, 981
- Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257
- Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620
- Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217
- Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19
- Particle Swarm Optimization for Preemptive Scheduling under Break and Resource-Constraints, 314
- Particle Swarm Optimization-Supported Simulation for Construction Operations, 413
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201
- Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202
- Permutation-Based Particle Swarm Optimization for Resource-Constrained Project Scheduling, 259
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626
- Seepage to a Drainage Ditch and Optimization of Its Shape, 1234
- Seismic Design Optimization of Steel Building Frameworks, 1466
- Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Simulated Annealing - Genetic Algorithm for Transit Network Optimization, 251
- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Stochastic Optimization of the Highland Lakes System in Texas, 1807
- Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547
- Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622
- Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623
- Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531

SUBJECT INDEX

Oscillations

- System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263
- Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917
- Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254
- Optimization models**
- Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396
- Developing a Resource Supply Chain Planning System for Construction Projects, 327
- Developing Combined Genetic Algorithm — Hill-Climbing Optimization Method for Area Traffic Control, 1736
- Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848
- Effects of Local Search Algorithms on Groundwater Remediation Optimization using a Self-Adaptive Hybrid Genetic Algorithm, 278
- Irrigation Scheduling with Travel Times, 1188
- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- Optimal Design in the Presence of Modeling Uncertainties, 77
- Optimal Design of Open Channel Section Incorporating Critical Flow Condition, 1223
- Optimal Design of Redundant Water Distribution Networks using a Cluster of Workstations, 1840
- Optimal Design with Probabilistic Objective and Constraints, 445
- Optimal Irrigation Planning under Water Scarcity, 1189
- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Simple Rule-Based Algorithm for Optimizing Volatile Fatty Acids Production in Primary Sludge Fermentation Schemes, 747
- Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751
- Orbits**
- New Approach to Mission Design Based on the Fundamental Equations of Motion, 65
- Oregon**
- Multiojective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814
- Short- and Long-Term Effects of Element Costs and Failure Costs in *Pontis*, 166
- Organic carbon**
- Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
- Organic chemicals**
- Bioremediation of Hazardous Wastes — A Review, 1946
- Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686

- Organic Hazardous Substances in Graywater from Swedish Households, 700
- Organic compounds**
- Adsorption and Desorption of Volatile Organic Compounds in Fluidized Bed, 648
- Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907
- Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956
- Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676
- Organic loads**
- Microbial Adaptability to Organic Loading Changes in an Enhanced Biological Phosphorus Removal Process, 701
- Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727
- Organic matter**
- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Character of Organic Matter in Soil-Aquifer Treatment Systems, 748
- Column Study Simulating In Situ Bioremediation of Perchlorate using Acetate as an Organic Substrate, 1950
- Comparison of Methods for Determining Specific Surface Area of Soils, 865
- Evaluation of a Sludge Yield and Phosphorus Removal in a Cannibal Solids Reduction Process, 735
- Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766
- Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705
- Removal of Immiscible Contaminants from Sandy Soils Monitored by Means of Dielectric Measurements, 704
- Organizations**
- Benchmarking Initiatives in the Construction Industry: Lessons Learned and Improvement Opportunities, 1255
- Boardrooms of Energy Firms in the Post-Enron Era, 424
- Emotional Intelligence and Leadership Behavior in Construction Executives, 1251
- Influence of the National Performance Review on Supervisors in Government Organizations, 1920
- The Limitations of Planning: The Importance of Learning, 382
- Organizational Distortions and Failures: A Method to Expose Them, 1408
- Relationship between Governance Structure and Financial Performance in Construction, 1239
- Turbocharged Organizational Change through High-Octane Management Training, 1916
- Orthotropism**
- Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155
- Oscillations**
- Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443

Oscillations

Steady-State Diffusion — Advection by Exponential Finite Elements, 55

Oscillatory flow

Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511

Detection of Partial Blockage in Single Pipelines, 952

Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040

Sediment Transport over Ripples in Oscillatory Flow, 950

Osmosis

Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892

Outfall sewers

Considerations for Storm-Water Outfalls off Exposed Coasts, 1233

Marine Wastewater Discharges from Multiport Diffusers. III: Stratified Stationary Water, 971

Marine Wastewater Discharges from Multiport Diffusers. IV: Stratified Flowing Water, 972

Outflows

Total Friction Loss along Multiple Outlets Pipes with Open End, 1167

Overconsolidated soils

Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915

Overflow

Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nani Typhoon, 963

Experimental Study and 3D Numerical Simulations for a Free-Overflow Spillway, 1022

Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154

Sediment Transport in River Models with Overbank Flows, 939

Overland flow

Analytical Solutions of Nonlinear Kinematic Wave Model, 1126

Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206

Electromagnetic Wave Surface Velocimetry, 946

Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

Maximum Fluid Forces in the Tsunami Runup Zone, 1903

Overloads

New Methodology: Permit Checking of Vehicular Overloads, 131

Overpasses

Fourways: Graphical Tool for Performance-Based Earthquake Engineering, 1564

Owners

Examining the Business Impact of Owner Commitment to Sustainability, 326

Owner's Role in Construction Safety, 304

Owner's Role in Construction Safety: Guidance Model, 305

2006 ASCE TRANSACTIONS

Pipelines 2006 — Service to the Owner, 2080

Risk Management: Lessons from Six Continents, 1244

Oxidation

Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607

Chromium Redox Chemistry in Drinking Water Systems, 694

Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619

Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656

Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670

Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763

Evaluation of Water Reuse Technologies for the Textile Industry, 618

Fenton and Electro-Fenton Methods for Oxidation of H-Acid and Reactive Black 5, 624

Impact of Inherent Factors on the Radiolytic Degradation of Biorefractory Contaminants, 755

MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584

Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732

Oxidation of Methyl *Tert*-Butyl Ether in Aqueous Solution by an Ozone/UV Process, 743

Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944

Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757

Sulfur Impregnation on Activated Carbon Fibers through H₂S Oxidation for Vapor Phase Mercury Removal, 615

Treating Soil PCP at Optimal Conditions using Heme and Peroxide, 678

Treatment of Contaminated Soils and Groundwater using ISCO, 1939

Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707

Oxygen

Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766

Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732

Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152

Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285

Oxygen demand

Anaerobic Degradability: Effect of Particulate COD, 637

Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720

New Process Design Procedure for Dealing with Variable Trickling Filter Effluent Suspended Solids, 684

Oxygen transfer

Air/Water Oxygen Transfer in a Biological Aerated Filter, 603

SUBJECT INDEX

Particle size

Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727

Ozone

Advanced Oxidation for Treatment of Aqueous Extracts from EDTA Extraction of Pb and Zn Contaminated Soil, 740

Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713

Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619

Ozonization

Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940

Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775

Pakistan

A Cautionary Tale, 1995

Panama Canal

Economic-Based Optimization of Panama Canal System Operations, 1852

Panels

Cellular Automata Model for Predicting the Failure Pattern of Laterally Loaded Masonry Wall Panels, 276

Fatigue Behavior of a Steel-Free FRP — Concrete Modular Bridge Deck System, 150

Hysteretic Model of Stiffened Shear Panel Dampers, 1486

Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermomechanical Loads, 548

Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453

Racking Performance of Structural Insulated Panels, 1617

Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495

Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86

Structural Insulated Panels: Impact on the Residential Construction Process, 366

Thermomechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels, 448

Paper mills

Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715

Parameters

Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100

Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172

Determining Equivalent Linear Parameters for Use in a Capacity Spectrum Method of Analysis, 1445

Distributions of Wave Steepness and Surf Parameter, 1855

DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799

Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520

Effect of Convergence on Nonlinear Flow in Porous Media, 973

Equivalent Linearization for the Nonstationary Response Analysis of Nonlinear Systems with Random Parameters, 481

Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data, 1135

Fate and Modeling of Pentachlorophenol Degradation in a Laboratory-Scale Anaerobic Sludge Digester, 689

Force Identification Based on Sensitivity in Time Domain, 544

Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527

Kinematic Wave Parameters for Trapezoidal and Rectangular Channels, 1088

Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52

Movement of Finite Amplitude Sediment Accumulations, 1003

New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572

Numerical Modeling and Analysis of Solute Velocity and Macrodispersion for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104

Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198

Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217

Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19

Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421

Parametric Study of One-Dimensional Solute Transport in Deformable Porous Media, 870

Soil — Nail Pullout Interaction in Loose Fill Materials, 36

Stepwise Parameter Estimations in a Time-Variant Similarity Transformation, 1660

Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615

System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521

Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485

Transition from Ripples to Dunes, 1063

Unified Sand Model Based on the Critical State and Generalized Plasticity, 580

Validation of the Hydrological Processes in a Hydrological Model, 1117

Watershed Surface and Subsurface Spatial Intraflows Model, 1071

Parking facilities

Determining the Desired Amount of Parking using Game Theory, 1778

Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789

Real Options by Spreadsheet: Parking Garage Case Example, 1147

Particle size

Analytic Solution on Critical Suspended Particle Size and Minimum Collection Efficiency in Deep Bed Filtration, 741

Particle size

Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723

Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733

Formulas for Sediment Porosity and Settling Velocity, 1016

Lightweight Shotcrete Canoe: Use of Viscosity Modifying Admixture and Acetone as Artificial Paste, 1390

Particle size distribution

Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695

Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941

Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628

Particles

Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736

Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667

Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875

Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467

Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832

Particle Swarm Optimization-Supported Simulation for Construction Operations, 413

Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621

Removal of Toluene Vapor with Dispersed Activated Carbon, 622

The Role of Bioflocculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655

Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Partnerships

Anatomy of a Successful Partnering Program on a Megaproject, 1915

Factor Analysis of Public Clients' Best-Value Objective in Public — Privately Partnered Infrastructure Projects, 383

Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355

Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310

Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298

Passive control

Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439

Passive pressure

Cyclic Lateral Load Behavior of a Pile Cap and Backfill, 883

Passive Earth Pressure Mobilization during Cyclic Loading, 884

2006 ASCE TRANSACTIONS

Pavement design

Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff, 761

Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316

Repeated Measurement Data Analysis in Pavement Deterioration Modeling, 1153

Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748

Statistical Modeling of User Perceptions of Infrastructure Condition: Application to the Case of Highway Roughness, 1677

Traffic Data Collection Requirements for Reliability in Pavement Design, 1688

Use of Superpave Gyrotray Compaction Data for Rutting Prediction, 1744

Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759

Viscoelastic Modeling and Field Validation of Flexible Pavements, 452

Pavement management

Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742

Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678

Determination of Required Falling Weight Deflectometer Testing Frequency for Pavement Structural Evaluation at the Network Level, 1671

Iterative Linear Approach for Nonlinear Nonhomogeneous Stochastic Pavement Management Models, 1689

Model to Predict Pavement Temperature Profile: Development and Validation, 1679

Pavements

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Applying Method of Moments to Model Reliability of Pavements Infrastructure, 1706

Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098

Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761

Cold Regions Engineering 2006 — Current Practices in Cold Regions Engineering, 2056

Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672

Ecofriendly Concrete with High Volume of Lagoon Ash, 1310

Estimation of Pavement Performance Deterioration using Bayesian Approach, 1144

Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770

Factors Affecting Portable Falling Weight Deflectometer Measurements, 853

Lateral Distribution of Mixed Traffic on Two-Lane Roads, 1728

Modeling of Pavement Response using Nonlinear Cross-Anisotropy Approach, 1711

Pavement Mechanics and Performance, 2079

Performance of Overburnt Distorted Bricks as Aggregates in Pavement Works, 1352

Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497

SUBJECT INDEX

- Reclaimed Hydrated Fly Ash as a Geomaterial, 1283
Seasonal Deterioration of Unsurfaced Roads, 857
Statistical Modeling of User Perceptions of Infrastructure Condition: Application to the Case of Highway Roughness, 1677
Stochastic Spatial Excitation Induced by a Distributed Contact on Homogenous Gaussian Random Fields, 505
Structural Performance Monitoring of an Unstabilized Fly Ash-Based Road Subbase, 1769
Study of In Situ Pavement Material Properties Determined from FWD Testing, 1745
Sudden Failure of a Heavily Loaded Container Pavement, 912
Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321
Transverse Pavement Grooving against Hydroplaning. I: Simulation Model, 1709
Transverse Pavement Grooving against Hydroplaning. II: Design, 1710
Turnpike Transformation, 2038
- Payment**
Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427
- PCB**
Bioremediation of Surfactant Flush Wastewater from Wood Treatment Soil, 595
Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676
PCB Volatilization from Sediments, 594
Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688
- PCE**
Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673
Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963
Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672
Simultaneous and Sequential Photolysis of TCE and PCE, 586
- Peak flow**
Flood Estimation by GIUH-Based Clark and Nash Models, 1124
NRCS (SCS) Synthetic Curvilinear Dimensionless Unit Hydrograph, 1236
Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Peat**
In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Pedestrians**
Completing the Circle, 2023
Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757
Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Performance characteristics

- Temporal Variation in Consumer Spatial Behavior in Shopping Streets, 1792
- Peer review**
Differences between Experts and Novices in the Review of Engineering Journal Papers, 1409
- Penetration**
New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42
Soil Penetration Modeling in Microtunneling Projects, 347
- Penetration resistance**
Effect of Penetration Rate on Penetrometer Resistance in Clay, 887
Numerical Analysis of T-Bar Penetration in Soft Clay, 53
- Penetration tests**
Effect of Penetration Rate on Penetrometer Resistance in Clay, 887
Interpretation of Impact Penetration Measurements in Soft Clays, 848
- Pennsylvania**
Effects of Flood Control Structures on Flood Response for Hurricane Floyd in the Brandywine Creek Watershed, Pennsylvania, 1115
Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644
Placed in Context, 2026
Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
Rapid Bridge Replacement under Emergency Situation: Case Study, 130
Turnpike Transformation, 2038
- People movers**
Automated Access, 2036
Automated People Mover Standards — Part 1 (ASCE 21-05), 2051
- Performance characteristics**
Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101
Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761
Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656
Conceptual Planning Process for Electrical Construction, 417
Construction Delays in Hong Kong Civil Engineering Projects, 352
Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672
Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496
Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737
Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526

Empirical Evaluation of Structural Frame Performance Criteria: Realizing the Potential of Hybrid Concrete Construction, 316

Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635

Hydraulic Performance Curves for Highway Culverts, 978

Iterative Linear Approach for Nonlinear Nonhomogeneous Stochastic Pavement Management Models, 1689

Lessons Learned on Jointed Concrete Pavement Rehabilitation Strategies in Texas, 1690

Pavement Mechanics and Performance, 2079

Performance and Analyses of Mechanically Stabilized Earth Walls in the Tecoman, Mexico Earthquake, 1395

Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190

Performance Prediction of Bridge Deck Systems using Markov Chains, 1378

Quantitative Measurement of Successful Performance from the Project Manager's Perspective, 415

Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141

System Model for Analyzing Design Productivity, 1240

Permeability

Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920

Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849

Effect of Convergence on Nonlinear Flow in Porous Media, 973

Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871

Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323

Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890

Identification of Poroelastic Constants of "Tight" Rocks from Laboratory Tests, 33

Laboratory Evaluation of Smear Zone and Correlation between Permeability and Moisture Content, 867

Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

Nondestructive and Laboratory Evaluation of Damage Gradients in Concrete Structure Exposed to Cryogenic Temperatures, 1368

Penetrating Sealants for Concrete Bridge Decks — Selection Procedure, 156

Vertical Drain Consolidation with Parabolic Distribution of Permeability in Smear Zone, 866

Permits

Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132

Personnel management

Case for Drug Testing of Construction Workers, 1242

Effect of Humor Usage by Engineers at Construction Sites, 1247

Fundamental Principles of Workforce Management, 297

Job Performance Evaluation for Construction Companies: An Analytic Network Process Approach, 370

Leveraging Personality for Business Success, 1921

Motivational Climate of Construction Apprentices, 341

Proposed Subcontractor-Based Employee Motivational Model, 303

Strategic Management of Human Resources in Construction, 1248

Summary Report: Leading the Way as Full Diversity Partners — A Senior Executive Workshop on Critical Skills for Courageous Leaders, 1905

Perturbation

Solving Wave Dispersion Equation for Dissipative Media using Homotopy Perturbation Technique, 1857

Peru

Tipon: Water Engineering Masterpiece of the Inca Empire, 2093

Pesticides

Transformation of DDT and its Metabolites by Various Abiotic Methods, 662

Petroleum

Bioremediation of Petroleum-Contaminated Soil using Composting, 1951

Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52

Petroleum refining

Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956

pH

Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Phenol

Biodegradation of Phenol with Wastewater as a Cosubstrate in Upflow Anaerobic Sludge Blanket, 759

Continuous Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor, 617

Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722

Phosphorus

Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720

Development and Application of a Phosphorus Model for a Shallow Oxbow Lake, 753

Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642

Evaluation of a Sludge Yield and Phosphorus Removal in a Cannibal Solids Reduction Process, 735

Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746

Microbial Adaptability to Organic Loading Changes in an Enhanced Biological Phosphorus Removal Process, 701

Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633

Removal of Immiscible Contaminants from Sandy Soils Monitored by Means of Dielectric Measurements, 704

Study of Total Maximum Daily Load and Nonpoint Source Pollution Control Strategies for Reservoir Watershed, 1954

SUBJECT INDEX

Pipelines

Physical properties

- Case Study of an S-Shaped Spillway using Physical and Numerical Models, 1021
- Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907
- Field Evaluation of Crushed Glass - Dredged Material Blends, 831
- Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830

Piers

- Live-Bed Local Pier Scour Experiments, 995
- Load Transfer in Rammed Aggregate Piers, 51
- A Robust Macroelement Model for Soil - Pile Interaction under Cyclic Loads, 898
- Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782
- Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783

Piezoelectricity

- Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724
- Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526
- Three-Dimensional Free Vibration Analysis of Multi-phase Piezocomposite Structures, 524

Pile driving

- Mitigation of Soil Movements from Pile Driving, 1977

Pile foundations

- Impact of Routine Quality Assurance on Reliability of Bored Piles, 835
- Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Pile groups

- Bearing Capacity of Piles Rafts on Soft Clay Soils, 927
- Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814
- Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847
- Experimental Investigation of Clear-Water Local Scour at Pile Groups, 1042
- Interaction Diagram and Load Effects for Vertical Pile Groups with Application to the AASHTO LRFD, 1484
- Passive Earth Pressure Mobilization during Cyclic Loading, 884
- Pile Spacing Effects on Lateral Pile Group Behavior: Load Tests, 894
- Pile Spacing Effects on Lateral Pile Group Behavior: Analysis, 895
- Raked Piles - Virtues and Drawbacks, 852
- Soil-Pile Response to Blast-Induced Lateral Spreading: I: Field Test, 793
- Soil-Pile Response to Blast-Induced Lateral Spreading: II: Analysis and Assessment of the p - y Method, 794

Pile load tests

- Pile Spacing Effects on Lateral Pile Group Behavior: Load Tests, 894

Pile tests

- Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Piles

- Analytical Solution for Piles Supporting Combined Lateral Loads, 899
 - CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191
 - Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49
 - Control of Scour at Vertical Circular Piles under Waves and Current, 959
 - Cyclic Lateral Load Behavior of a Pile Cap and Backfill, 883
 - Drag Force on Single Piles in Clay Subjected to Surge Loading, 20
 - DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
 - Influence Zone for End Bearing of Piles in Sand, 891
 - Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901
 - Live-Bed Local Pier Scour Experiments, 995
 - Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910
 - Observed Performance of Long Steel H-Piles Jacked into Sandy Soils, 779
 - Physio-Chemical Changes in Clay Caused by Ion Migration from Lime Piles, 1281
 - Pile Spacing Effects on Lateral Pile Group Behavior: Load Tests, 894
 - Pile Spacing Effects on Lateral Pile Group Behavior: Analysis, 895
 - Raked Piles - Virtues and Drawbacks, 852
 - A Robust Macroelement Model for Soil - Pile Interaction under Cyclic Loads, 898
 - Simple Dynamic Model for Fender Pile Analysis and Design, 1895
 - Soil-Pile Response to Blast-Induced Lateral Spreading: I: Field Test, 793
 - Soil-Pile Response to Blast-Induced Lateral Spreading: II: Analysis and Assessment of the p - y Method, 794
- ### Pipe flow
- 3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954
 - Detection of Partial Blockage in Single Pipelines, 952
 - Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
 - Time-Line Interpolation Errors in Pipe Networks, 961
 - Total Friction Loss along Multiple Outlets Pipes with Open End, 1167
- ### Pipe networks
- Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942
 - Time-Line Interpolation Errors in Pipe Networks, 961
- ### Pipelines
- Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903
 - Guidelines for Pipeline On-Bottom Stability on Liquefied Noncohesive Seabeds, 1883
 - Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805
 - Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881
 - Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155
 - Pipelines 2006 - Service to the Owner, 2080

Pipelines

Risk Management: Lessons from Six Continents, 1244
Soil Restraint to Oblique Movement of Buried Pipes in Dense Sand, 1681

Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000

Pipes

Design of a Rigid Cutoff Wall, 34

Evaluation of Local Bending in Profile-Wall Polyethylene Pipes, 1762

Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860

Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987

In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904

Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861

Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001

Range of Validity of the Transient Damping Leakage Detection Method, 1025

Safe Distance between Large-Diameter Rock Pipe Bursting and Nearby Buildings and Buried Structures, 1699

Splicing of Precast Concrete-Filled FRP Tubes, 224

Three-Dimensional CFD Predictions and Experimental Comparison of Pressure Drop of Some Common Pipe Fittings in Turbulent Flow, 426

Plane strain

Plane Strain and Axially Symmetric Consolidation in Unsaturated Soils, 24

Planets

Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73

Planning

Conceptual Planning Process for Electrical Construction, 417

Developing Multiple Indicators and Triggers for Drought Plans, 1817

Infrastructure Planning Handbook -- Planning, Engineering, and Economics, 2075

Quantitative Measurement of Successful Performance from the Project Manager's Perspective, 415

Sequence Planning for Electrical Construction, 324

What is Preproject Planning, Anyway?, 1241

Plastic analysis

Critical Inclination of Compression Struts in Concrete Beams, 1508

Reliability of Steel Frames Designed with Advanced Analysis, 1465

Plastic deformation

Performance of Structures before and during Failure, 1972

Plastic hinges

Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470

Plastic Hinge Integration Methods for Force-Based Beam -- Column Elements, 1462

Plasticity

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

2006 ASCE TRANSACTIONS

Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475

General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41

Ground Movement Predictions for Braced Excavations in Undrained Clay, 821

How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790

Interpretation of Impact Penetration Measurements in Soft Clays, 848

Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782

Unified Sand Model Based on the Critical State and Generalized Plasticity, 580

Plates

Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81

Buckling of Simply Supported Rectangular Reissner -- Mindlin Plates Subjected to Linearly Varying In-Plane Loading, 491

Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483

Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195

Design of Circular Base Plates, 1970

Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8

Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484

Dynamic Stability of Ferromagnetic Beam-Plates with Magnetoelastic Interaction and Magnetic Damping in Transverse Magnetic Fields, 476

Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526

Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574

Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500

Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528

Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66

Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610

Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1499

System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521

Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199

Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540

Platforms

An Avoidable Tragedy, 2039

The Gulf of Mexico Decommissioning Market, 369

Liquefaction Phenomena underneath Marine Gravity Structures Subjected to Wave Loads, 1885

Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313

Plumes

Multiple Tandem Jets in Cross-Flow, 1027

SUBJECT INDEX

- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. I: Field Study of Tracer Movement, 1966
- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967
- Remediation of a TCE Plume using a Three-Component Strategy, 1952
- Poisson ratio**
- Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765
- Poles**
- Design of Steel Transmission Pole Structures (ASCE/SEI 48-05), 2058
- Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628
- Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164
- Reliability-Based Design of Utility Pole Structures, 2082
- Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597
- Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup — Field Application, 211
- Political factors**
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Sharing Water in Times of Scarcity: Guidelines and Procedures in the Development of Effective Agreements to Share Water Across Political Boundaries, 2085
- Pollutants**
- Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734
- Applicability of Equilibrium Isotherm Models for the Biosorptive Uptakes in Comparison to Activated Carbon-Based Adsorption, 764
- Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711
- Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643
- Start at the Source, 2001
- Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707
- Pollution**
- Control of PAHs from Incineration by Activated Carbon Fibers, 650
- Development of a University Laboratory Chemical Inventory and Exchange Program, 1945
- Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152
- Polyethylene**
- High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690
- Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327
- Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974

Pore water pressure

- Polymers**
- Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293
- Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657
- Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647
- The Role of Bioflocculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655
- Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Polynomials**
- Chebyshev Finite-Spectral Method for 1D Bousinesq-Type Equations, 1876
- Ponds**
- Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090
- Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775
- Ecofriendly Concrete with High Volume of Lagoon Ash, 1310
- Pools**
- Hydraulics of Plane Plunge Pool Scour, 976
- Pore pressure**
- Effect of Gas on Pore Pressures in Wet Landfills, 829
- In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Laboratory Study of Liquefaction due to Wave-Seabed Interaction, 856
- Physics of Liquefaction Phenomena around Marine Structures, 1877
- Pore size distribution**
- Constriction Size of Geotextile Filters, 2
- Pore water**
- Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920
- Influence of Pore-Water Velocity on Transport Behavior of Cadmium: Equilibrium versus Nonequilibrium, 1958
- Pore water pressure**
- Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105
- Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884
- Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915
- Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437
- Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815
- Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783
- Sudden Failure of a Heavily Loaded Container Pavement, 912
- Thermohydrmechanical Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Vertical Drain Consolidation with Parabolic Distribution of Permeability in Smear Zone, 866

Poroelectricity

Effective Medium Theories for Multicomponent Poroelectric Composites, 486

Hydraulic Damping of Saturated Poroelectric Soils During Steady-State Vibration, 523

Identification of Poroelectric Constants of "Tight" Rocks from Laboratory Tests, 33

Pore Pressure Response Following Undrained uCPT Sounding in a Dilating Soil, 915

Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510

Porosity

Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098

Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562

Formulas for Sediment Porosity and Settling Velocity, 1016

Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64

Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289

Spatial Moment Analysis for One-Dimensional Nonisothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106

Porous materials

Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562

Freezing - Thawing Model for Soils and Rocks, 1286

Porous media

Application of UVP within Porous Beds, 1028

Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098

Capillarity and Evaporation Exacerbated Seepage Losses from Unlined Channels, 1235

Decreasing Measuring Errors of a Thermal Groundwater Flowmeter, 1195

Effect of Convergence on Nonlinear Flow in Porous Media, 973

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Effective Medium Theories for Multicomponent Poroelectric Composites, 486

Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23

Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations - Modeling Study, 589

Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457

Hydraulic Damping of Saturated Poroelectric Soils During Steady-State Vibration, 523

Improving Fluid Flow in Clarifiers using a Highly Porous Media, 726

Parametric Study of One - Dimensional Solute Transport in Deformable Porous Media, 870

Solving Wave Dispersion Equation for Dissipative Media using Homotopy Perturbation Technique, 1857

Turbulent Boundary Layer Flows above a Porous Surface Subject to Flow Injection, 553

Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540

Portland cements

Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098

Assessing the Carbonation Behavior of Cementitious Materials, 1351

Early Hydration Process of Portland Cement Paste by Electrical Measurement, 1272

Metakaolin as an Extender in South African Cement, 1332

Role of an Amorphous Silica in Portland Cement Concrete, 1348

Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285

Post tensioning

Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538

Nondestructive Dynamic Evaluation of a Concrete Reaction Wall - Numerical and Experimental Studies, 1389

Posttensioned Anchorage Zone Enhancement with Fiber-Reinforced Concrete, 159

Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539

Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480

Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161

Postbuckling

Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediate Stiffeners, 1491

Mechanics of Web Panel Postbuckling Behavior in Shear, 1595

The Most Degrading Postbuckling Mode of Pin-Jointed Structures, 513

Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574

Postbuckling of Beam Subjected to Intermediate Lower Force, 436

Postbuckling of Elastic Columns with Second-Mode Imperfection, 527

Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569

Thermomechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels, 448

Potable water

Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798

Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825

Charge Reversal Effect on Blanket in Full-Scale Floc Blanket Clarifier, 756

Chromium Redox Chemistry in Drinking Water Systems, 694

Comparative Analysis of Water Vulnerability Assessment Methodologies, 1146

Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834

SUBJECT INDEX

Prestressing

- Inactivation Kinetics of the Cyanobacterial Toxin Microcystin-LR by Free Chlorine, 692
- Iron Oxide Coated Sand for Arsenic Removal: Investigation of Coating Parameters using Factorial Design Approach, 1962
- Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600
- Model for Estimating Acute Health Impacts from Consumption of Contaminated Drinking Water, 1831
- Potential flow**
- Seepage from a Rectangular Ditch to the Groundwater Table, 1192
- Powerplants**
- Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429
- Sustainability and Economics of the Advanced High-Temperature Reactor, 432
- Precipitation**
- Arsenic Removal from Water by Moving Bed Active Filtration, 583
- Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127
- Guidelines for Cloud Seeding to Augment Precipitation, 2073
- Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092
- Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093
- Predictions**
- Application of Support Vector Machine in Lake Water Level Prediction, 1091
- Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61
- Challenges in Predicting Power Output from Offshore Wind Farms, 430
- Coordinate Transformation between Two Geodetic Datums of Taiwan by Least-Squares Collocation, 1649
- Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381
- Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396
- Determining Equivalent Linear Parameters for Use in a Capacity Spectrum Method of Analysis, 1445
- Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721
- Distortional Buckling Tests on Cold-Formed Steel Beams, 1490
- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216
- Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111
- Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468
- HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931
- Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443
- Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240
- Performance Prediction of Bridge Deck Systems using Markov Chains, 1378
- Predictability of Annual Sediment Loads based on Flood Events, 1108
- Predicting Construction Cost using Multiple Regression Techniques, 362
- Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822
- Predicting Speeds in an Urban Right-Turn Lane, 1684
- Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193
- Prediction of Ductile Fracture in Steel Connections using SMCS Criterion, 1455
- Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272
- Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881
- Quantifying the Effect of Rock Strength Criteria on Minimum Drilling Mud Weight Prediction using Polyaxial Rock Strength Test Data, 38
- Rate of Deposition of Fine Sediment from Suspension, 985
- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- Short-Term Freeway Traffic Flow Prediction: Bayesian Combined Neural Network Approach, 1675
- Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748
- Theoretical Analysis of Transfer Lengths in Pretensioned Prestressed Concrete Members, 545
- Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111
- Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733
- VOF Model for Simulation of a Free Overfall in Trapezoidal Channels, 1212
- Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627
- Prefabrication**
- Double-Layer Prefabricated FRP Grids for Rapid Bridge Deck Construction: Case Study, 208
- Preservation**
- Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341
- Pressures**
- Allowable Bearing Pressures of Bridge Sills on GRS Abutments with Flexible Facing, 855
- Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61
- Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562
- Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708
- Prestressing**
- Concrete Beams Strengthened with Prestressed Near Surface Mounted CFRP, 194

- Critical Inclination of Compression Struts in Concrete Beams, 1508
- Effective Slab Width in Prestressed Twin-Girder Composite Decks, 1573
- Modeling of Prestressed Concrete-Filled Circular Composite Tubes Subjected to Bending and Axial Loads, 1483
- Prelex Beams: A Method of Calculation of Creep and Shrinkage Effects, 108
- Theoretical Analysis of Transfer Lengths in Pretensioned Prestressed Concrete Members, 545
- Torsional Design of Hybrid Concrete Box Girders, 136

Pricing

- Achieving Water Use Efficiency in Irrigation Districts, 1846
- Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682
- Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683
- Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845
- Influence of School Accessibility on Housing Values, 1785
- Price and Nonprice Criteria for Contractor Selection, 367
- Procurement Routes in Public Building and Construction Projects, 356
- Testing Vickrey's Revenue Equivalence Theory in Construction Auctions, 330

Private sector

- Factor Analysis of Public Clients' Best-Value Objective in Public — Privately Partnered Infrastructure Projects, 383
- Influence of the National Performance Review on Supervisors in Government Organizations, 1920
- Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298

Privatization

- CAPM-Based Valuation of Financial Government Supports to Infeasible and Risky Private Infrastructure Projects, 312
- Factor Analysis of Public Clients' Best-Value Objective in Public — Privately Partnered Infrastructure Projects, 383

Probabilistic methods

- Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130
- CPT-Based Probabilistic and Deterministic Assessment of In Situ Seismic Soil Liquefaction Potential, 873
- Critical Bed Shear Stress for Unisize Sediment, 949
- Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678
- Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425
- Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155
- Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538
- Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361
- Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539
- Reliability and Human Factors in Geotechnical Engineering, 836

- Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801

Probabilistic models

- Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156
- Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139
- Modeling Cost Escalation in Large Infrastructure Projects, 373
- Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Probabilistic Demand Models and Fragility Curves for Reinforced Concrete Frames, 1593
- Probabilistic Neural Networks Application for Vehicle Classification, 1693

Probability

- Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734
- Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315
- Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802
- First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT Data, 809
- Four Alternative Definitions of the Fuzzy Safety Factor, 83
- Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843
- Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397
- Optimal Design with Probabilistic Objective and Constraints, 445
- Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134
- Probabilistic Behavior of Floods of Record in the United States, 1120
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Probability Density Functions in the Analysis of Hydraulic Conductivity Data, 1116
- Probability-Based Bridge Network Performance Evaluation, 167
- Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842
- Return Period of Recorded Ground Motion, 1522
- Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569
- Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092

SUBJECT INDEX

Probability density functions

Probability Density Function of Instantaneous Drag Forces and Shear Stresses on a Bed, 1050

Probability distribution

Bivariate Flood Frequency Analysis Using the Copula Method, 1086

Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830

Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036

Process control

Contractor Process Improvement for Enhancing Construction Productivity, 307

Procurement

Comparing Procurement Methods for Design-Build Projects, 311

Legal Challenge to a Best-Value Procurement System, 1906

Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355

Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298

Productivity

Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320

Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317

Case for Drug Testing of Constructoin Workers, 1242

Construction Delays in Hong Kong Civil Engineering Projects, 352

Contractor Process Improvement for Enhancing Construction Productivity, 307

Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328

Effects of Schedule Pressure on Construction Performance, 306

Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334

Fundamental Principles for Avoiding Congested Work Areas — A Case Study, 1989

Fundamental Principles of Workforce Management, 297

Measuring Project Level Productivity on Transportation Projects, 319

Neural Networks for Estimating the Productivity of Concreting Activities, 353

Productivity and Equity of Different Irrigation Schedules under Limited Water Supply, 1203

Soil Penetration Modeling in Microtunneling Projects, 347

Structural Insulated Panels: Impact on the Residential Construction Process, 366

Summary Report: Leading the Way as Full Diversity Partners — A Senior Executive Workshop on Critical Skills for Courageous Leaders, 1905

System Model for Analyzing Design Productivity, 1240

Professional development

Emotional Intelligence and Leadership Behavior in Construction Executives, 1251

Project management

Mentoring in Engineering, 1909

Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357

Professional practice

At a Crossroads — Is Value-based Compensation the Answer?, 1919

Civil Engineering Crisis, 1907

Educating Engineers to Create a Sustainable Future, 631

Engineering Experience and Competitions Implement ABET Criteria, 1419

GEO-Volution: The Evolution of Colorado's Geological and Geotechnical Engineering Practice, 2070

Progressive failure

Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398

Comparison of Various Procedures for Progressive Collapse Analysis, 1402

Global System Considerations for Progressive Collapse with Extensions to Other Natural and Man-Made Hazards, 1406

Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397

Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403

Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399

Preventing Disproportionate Collapse, 1396

Progressive Collapse — An Implosion Contractor's Stock in Trade, 1405

Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407

Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401

Study of Mitigation Strategies for Progressive Collapse of a Reinforced Concrete Commercial Building, 1404

Project management

Addressing Security in Early Stages of Project Life Cycle, 1259

Application of Dependency Structure Matrix for Activity Sequencing in Concurrent Engineering Projects, 336

Assessment with 360° Evaluations of Leadership Behavior in Construction Project Managers, 1246

Constructability State of Practice Report, 325

Construction Delays and Their Causative Factors in Nigeria, 354

Construction Delays in Hong Kong Civil Engineering Projects, 352

Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388

Construction Scheduling and Progress Control using Geographical Information Systems, 285

Contractors' Views of the Potential Causes of Inconsistencies between Design and Construction in Saudi Arabia, 1372

Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415

Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects, 375

Project management

- Developing a Complexity Measure for Project Schedules, 343
- Developing Knowledge Landscapes through Project-Based Learning, 1416
- Development of an Industry Foundation Classes Assembly Viewer, 257
- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Economic Value of Building Faster, 363
- Examining the Business Impact of Owner Commitment to Sustainability, 326
- Forecasting Project Status by using Fuzzy Logic, 406
- Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139
- Human Systems Engineering™ — A Trilogy, Part II: May The Force Be With You: Anatomy Of Project Failures, 1904
- Influences Impacting Leadership Development, 1245
- Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432
- Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256
- The Limitations of Planning: The Importance of Learning, 382
- Management and Construction of the Three Gorges Project, 349
- Measuring Project Level Productivity on Transportation Projects, 319
- Multiproject Planning and Resource Controls for Facility Management, 416
- Neural Networks for Estimating the Productivity of Concreting Activities, 353
- Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
- Only Dynamics Can Absorb Dynamics, 403
- Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081
- Quantitative Measurement of Successful Performance from the Project Manager's Perspective, 415
- Relative Effectiveness of Project Delivery and Contract Strategies, 288
- Risk Management: Lessons from Six Continents, 1244
- Scheduling Construction Projects using Evolutionary Algorithm, 374
- Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357
- System Model for Analyzing Design Productivity, 1240
- Use of a WBS Matrix to Improve Interface Management in Projects, 294
- Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281
- Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273
- Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318
- What is Preproject Planning, Anyway?, 1241
- Work Continuity Constraints in Project Scheduling, 289
- Protective structures**
- Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913

2006 ASCE TRANSACTIONS

Public health

- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Evaluation of Drinking Water Treatment Technology: An Entropy-Based Fuzzy Application, 728
- Health Risk Assessment for a Contaminated Site: A Case Study, 1964
- Inactivation Kinetics of the Cyanobacterial Toxin Microcystin-LR by Free Chlorine, 692
- Model for Estimating Acute Health Impacts from Consumption of Contaminated Drinking Water, 1831

Public policy

- Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1776
- Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States., 1777

Public safety

- Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943
- Delay between Sensing and Response in Water Contamination Events, 1145
- Structures Congress 2006: Structural Engineering and Public Safety, 2092

Public services

- Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415

Public transportation

- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789
- Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718

Public works

- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372

Publications

- Differences between Experts and Novices in the Review of Engineering Journal Papers, 1409
- Research Publication Trends and Topics in *Compounding in Civil Engineering*, 246

Pull-out resistance

- Continuous Interface Elements Subject to Large Shear Deformations, 21
- Soil — Nail Pullout Interaction in Loose Fill Materials, 36

Pultrusion

- Buckling of GFRP Columns: An Empirical Approach to Design, 242
- Characterization of Unistrut Connection Method with Pultruded Fiber-Reinforced Polymer Channels, 1342
- Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244

Pumping tests

- Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Pumps

- Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803

SUBJECT INDEX

Rainfall

Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

Field Study to Investigate WIDE Technology for TCE Extraction, 880

Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222

Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209

Numerical Model of Saltwater Transport toward a Pumping Well, 1103

Simplified Kernel Method for Flow to Large Diameter Wells, 1173

Statistical Modeling of the Serviceability of Sewage Pumps, 1039

Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062

Punching

Improved STrength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509

Quality control

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388

Contractor Process Improvement for Enhancing Construction Productivity, 307

Critical Analysis of Computing Equations for Determination of BOD by Dilution Methods, 651

Determination of Atterberg Limits: Uncertainty and Implications, 816

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. II: Experimental Results and Quality Assurance, 1269

Effects of Schedule Pressure on Construction Performance, 306

Impact of Quality on Building Costs, 1157

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

MACROS: Multiobjective Automated Construction Resource Optimization System, 1252

Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310

Quality Control Method for Pile Driving, 879

Total Quality Performance of Design/Build Firms using Quality Function Deployment, 292

Quantitative analysis

Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328

Radar

Accuracy of Ground-Penetrating Radar for Pavement-Layer Thickness Analysis, 1673

Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932

Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79

Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128

Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093

Radial flow

Turbulence Dissipation in Stirred Jars, 567

Radiation

Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165

Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180

Radioactive materials

Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097

Radioactive wastes

Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737

Radioactive Waste Foams: Formation and Mitigation, 680

Radiography

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268

Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785

Toward a Physical Damage Variable for Concrete, 512

Raft foundations

Bearing Capacity of Piles Rafts on Soft Clay Soils, 927

Rail transportation

CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799

Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788

Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718

Short Circuit, 2041

Railroad engineering

Cost-Effectiveness of Railway Infrastructure Renewal Maintenance, 1729

Railroad grade crossings

Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668

Short Circuit, 2041

Railroad stations

Above it All, 2042

The Berlin Connection, 2025

Railroad tracks

Ground Motion Induced by Train Passage, 455

Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171

Railroad trains

Ground Motion Induced by Train Passage, 455

Rain gages

Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128

Rainfall

Analytical Solutions of Nonlinear Kinematic Wave Model, 1126

Rainfall

- ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
- Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105
- Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130
- Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122
- Development of Optimal and Physically Realizable Unit Hydrograph, 1134
- Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890
- Full-Scale Measurements to Investigate Rain — Wind Induced Cable-Stay Vibration and its Mitigation, 133
- Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080
- Hydrologic Modeling Inventory: Cooperative Research Effort, 1175
- Instantaneous Unit Hydrograph Evaluation for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas, 1218
- Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198
- Physical Analog of the Linear Reservoir, 1089
- Semidistributed Form of the Tank Model Coupled with Artificial Neural Networks, 1112
- Stochastic Point Rainfall Modeling for Correlated Rain Cell Intensity and Duration, 1073
- Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210
- Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123
- Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093
- Rainfall duration**
- Enhanced Runoff Curve Number Model Incorporating Storm Duration and a Nonlinear I_t - S Relation, 1136
- Stochastic Point Rainfall Modeling for Correlated Rain Cell Intensity and Duration, 1073
- Rainfall frequency**
- Comparison of Two Nonparametric Alternatives for Stochastic Generation of Monthly Rainfall, 1094
- Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092
- Ramps**
- Energy Dissipation on Block Ramps, 935
- Energy Dissipation on Reinforced Block Ramps, 1197
- Flow Resistance of Rock Chutes with Protruding Boulders, 986
- Random processes**
- Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886
- Simulation of Multidimensional Binary Random Fields with Application to Modeling of Two-Phase Random Media, 496
- Stochastic Spatial Excitation Induced by a Distributed Contact on Homogeneous Gaussian Random Fields, 505

2006 ASCE TRANSACTIONS

- Random variables**
- Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539
- Random vibration**
- Evaluation of Karhunen-Loève, Spectral, and Sampling Representations for Stochastic Processes, 453
- Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Random waves**
- Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543
- Prediction of Long Forcing Waves for Harbor Agitation Study, 1871
- Reactors**
- Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669
- Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721
- Dissolution of Wollastonite in a Packed Bed Contactor, 634
- Dyed Microspheres for Quantification of UV Dose Distributions: Photochemical Reactor Characterization by Lagrangian Actinometry, 742
- Effects of Surface-Bound Fe^{2+} on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658
- Enhancement of Denitrification in Uplift Sludge Bed Reactors with Sludge Wasting, 635
- Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667
- Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776
- Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649
- Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745
- Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610
- Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687
- Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630
- Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722
- Treatment of Dilute Wastewaters using a Novel Submerged Anaerobic Membrane Bioreactor, 604
- Reaeration**
- Jackson River Modeling: 50-Year Perspective, 719
- Real estate properties**
- Real Estate Market Response to Coastal Flood Hazards, 1936
- Recharge basins**
- Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 762
- Reclamation**
- Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers, 675

SUBJECT INDEX

Reconstruction

- Catastrophe-Induced Destruction and Reconstruction, 1924
- Completing the Circle, 2023
- Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334
- Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- Special Report: The Big Uneasy, 2033

Recreation

- Determining Free Flight Performance by Surveying Engineering Techniques, 1653
- Value of Instream Recreation in the Sonoran Desert, 1806

Recycling

- Automated Measurement of Railway Ballast Angularity, 1331
- Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339
- Development of Mix Design Procedure for Cold In-Place Recycling with Foamed Asphalt, 1274
- Effects of Silica Fume and Rice Husk Ash on the Properties of Heavyweight Concrete, 1301
- Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324
- Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770
- Failure Investigation of a Foamed-Asphalt Highway Project, 1140
- Field Evaluation of Crushed Glass - Dredged Material Blends, 831
- Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956
- High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347
- Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830
- Material-Related Aspects of Asphalt Recycling - State-of-the-Art, 1270
- The Paper Alternative, 2015
- Potential of Wood Waste Ash as an Additive in Concrete, 1330
- Rheological Characterization of Asphalt Emulsions Residues, 1304
- Role of an Amorphous Silica in Portland Cement Concrete, 1348
- Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285
- Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291
- Statistical Modeling to Forecast Odor Levels of Biosolids Applied to Reuse Sites, 652
- Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267
- Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319
- Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292
- Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers, 675

Regulations

Redundancy

- Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247

Reefs

- Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858

Regression analysis

- Compaction Delay Effects on Properties of Lime-Treated Soil, 1287
- Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507
- Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038
- Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273
- Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703
- Predicting Construction Cost using Multiple Regression Techniques, 362
- Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359
- Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625
- Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750
- What Does the Construction Industry Value in its Workers?, 392

Regression models

- Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742
- Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843
- Methodology to Develop Median Barrier Warrant Criteria, 1691
- Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- Oil and Grease Measurement in Highway Runoff - Sampling Time and Event Mean Concentrations, 629
- Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653
- Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668
- Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979
- Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748

Regulations

- Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419
- Evaluation of Programs for Regulating Withdrawal of Surface Water under the Riparian Legal System, 1841
- Future Environmental Regulation Issues to Promote Energy Efficiency, 427
- New Process Design Procedure for Dealing with Variable Tricking Filter Effluent Suspended Solids, 684

Regulations

Start at the Source, 2001

Rehabilitation

Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214

CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191

Condition Assessment of Water Distribution Pipes, 1151

Condition Rating Model for Underground Infrastructure Sustainable Water Mains, 1376

Determination of Required Falling Weight Deflectometer Testing Frequency for Pavement Structural Evaluation at the Network Level, 1671

Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802

Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749

Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770

Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334

Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminated Systems, 232

Grace under Pressure, 2013

Impact of Quality on Building Costs, 1157

Iterative Linear Approach for Nonlinear Nonhomogeneous Stochastic Pavement Management Models, 1689

Lessons Learned on Jointed Concrete Pavement Rehabilitation Strategies in Texas, 1690

Long-Term Durability of State Street Bridge on Interstate 80, 125

Market Fresh, 2019

Modifying Merchants Bridge, 2022

Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240

Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155

Past Perfect, 1996

Performance of a Penetrating Corrosion Inhibitor in Concrete Affected by Carbonation-Induced Corrosion, 1359

Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154

Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400

Reclaimed Asphalt Pavement Detection and Quantity Determination, 1988

Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209

Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105

Streaming Solutions, 1997

2006 ASCE TRANSACTIONS

Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615

Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926

Using Advanced Inspection Technologies to Support Investments in Maintenance and Repair of Transportation Infrastructure Facilities, 1669

UTW Behavior on Asphalt Pavements Tested with HWLS, 1760

Reinforcement

3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705

CFRP Strengthening for Punching Shear of Interior Slab — Column Connections, 230

Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198

Durability Prediction for GFRP Reinforcing Bars using Short-Term Data of Accelerated Aging Tests, 216

Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237

Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478

Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171

Multilaminar Macromodel for Concrete Masonry: Formulation and Verification, 1635

Posttensioned Anchorage Zone Enhancement with Fiber-Reinforced Concrete, 159

Probabilistic Demand Models and Fragility Curves for Reinforced Concrete Frames, 1593

Shear Resistance of FRP RC Beams: Experimental Study, 235

Stress — Strain Behavior of Large-Scale Circular Columns Confined with FRP Composites, 1450

Reinforcing steels

Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248

Reliability

Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169

Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701

First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809

Four Alternative Definitions of the Fuzzy Safety Factor, 83

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618

Multi-Objective Trade-Offs between Cost and Reliability in the Replacement of Water Mains, 1809

Quality Control Method for Pile Driving, 879

Reliability Analysis of Deflection of Buried Flexible Pipes, 1754

Reliability and Human Factors in Geotechnical Engineering, 836

SUBJECT INDEX

Research

- Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439
- Reliability of Steel Doweled Wood Connections Designed to ASCE 16-95, 1482
- Reliability-Based Design of Utility Pole Structures, 2082
- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- Robustness Analysis of Two-Dimensional Networks, 1664
- Seismic Fragility Analysis of Structural Systems, 473
- Traffic Data Collection Requirements for Reliability in Pavement Design, 1688
- Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744
- Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161
- Relocation**
 - Moving a Reinforced-Concrete Building: Case Study, 299
- Remedial action**
 - Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology, 661
 - Adoption of the International Residential Code in a High Natural Hazards Region — An Overview, 85
 - Advanced Oxidation for Treatment of Aqueous Extracts from EDTA Extraction of Pb and Zn Contaminated Soil, 740
 - Application of Fenton's Reagent to Remediate Diesel Contaminated Soils, 1941
 - Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613
 - Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
 - Column Study Simulating In Situ Bioremediation of Perchlorate using Acetate as an Organic Substrate, 1950
 - Cyclodextrin-Enhanced Electrokinetic Remediation of Soils Contaminated with 2,4-Dinitrotoluene, 718
 - Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
 - Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations — Modeling Study, 589
 - Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
 - Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639
 - Factors Influencing Arsenite Removal by Zero-Valent Iron, 749
 - Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605
 - Field Study to Investigate WIDE Technology for TCE Extraction, 880
 - Ground Modification and Seismic Mitigation, 2072
 - Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837
 - Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959
 - Low-Temperature Soil Heating using Renewable Energy, 659
 - Natural Attenuation Assessment using Mineral Data, 1968
 - Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688
 - Remediation of a TCE Plume using a Three-Component Strategy, 1952
 - Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610
 - Treatment of Contaminated Soils and Groundwater using ISCO, 1939
- Remote sensing**
 - GPS Precise Point Positioning Software for Ground Control Point Establishment in Remote Sensing Applications, 1642
 - Improved AADT Estimation by Combining Information in Image- and Ground-Based Traffic Data, 1719
 - Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808
 - Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087
 - Satellite Monitoring of Urban Spatial Growth in the Amman Area, Jordan, 1796
 - Urban Origins/Destinations from High-Resolution Remote Sensing Images, 1783
- Renovation**
 - Landmark Reinvented, 2007
 - Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105
- Repeated loads**
 - Identification and Modeling of Permanent Deformations of Asphalt Concrete, 458
 - Monotonic and Cyclic Behavior of Two Calcareous Soils of Different Origins, 925
 - Sudden Failure of a Heavily Loaded Container Pavement, 912
 - Unloading and Reloading Stress — Strain Model for Confined Concrete, 1449
- Replacement**
 - Lessons Learned from an Emergency Bridge Replacement Project, 321
 - Placed in Context, 2026
 - Rapid Bridge Replacement under Emergency Situation: Case Study, 130
- Research**
 - Advances in Earth Structures — Research to Practice, 2045
 - Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932
 - Evaluation of the Nash—Sutcliffe Efficiency Index, 1132
 - Human Systems Engineering™ — A Trilogy, Part II: May The Force Be With You: Anatomy Of Project Failures, 1904
 - Measuring Project Level Productivity on Transportation Projects, 319
 - Research Publication Trends and Topics in *Computing in Civil Engineering*, 246
 - Unsaturated Soil Mechanics in Engineering Practice, 807
 - Vaporizing the Gathering Storm, 2005

Reservoir operation

Reservoir operation

- Can Reservoir Storage Be Uneconomically Large?, 1854
- Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir, 1047
- GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816
- Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080
- Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176
- Operating Reservoirs in Changing Conditions, 2078
- Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178
- Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Watershed and River Systems Management Program: Overview of Capabilities, 1174

Reservoirs

- Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Drought Storage Allocation Rules for Surface Reservoir Systems, 1842
- Ice Stresses in Reservoirs: Effect of Water Level Fluctuations, 183
- Life of Maithon Reservoir on Ground of Sedimentation: Case Study in India, 1019
- Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020
- Physical Analog of the Linear Reservoir, 1089
- Plane Impulse Waves in Reservoirs, 1888
- Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437
- Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109
- Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087
- Response of a Tropical Reservoir to Bubbler Destra-ification, 682
- Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710
- Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811

Residential location

- Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786
- CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799
- Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions, 1772

Residual soils

- Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864
- Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Residual strength

- Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

2006 ASCE TRANSACTIONS

- Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597

- Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Residual stress

- Change of Weld Residual Stresses due to Loss of Material, 1630
- Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628

Resonance

- Computation of Short-Crested Deepwater Waves, 1870
- Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511
- Degradation of Sands due to Combined Sinusoidal Loading, 930
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- Time-Line Interpolation Errors in Pipe Networks, 961

Resource management

- Developing a Resource Supply Chain Planning System for Construction Projects, 327
- MACROS: Multiobjective Automated Construction Resource Optimization System, 1252
- Multiproject Planning and Resource Controls for Facility Management, 416
- Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
- Operations Management for Engineering Consulting Firms: A Case Study, 1249
- Optimal Irrigation Planning under Water Scarcity, 1189
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- The Place of Fire, 1932
- Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361

Response spectra

- Inelastic Spectrum-Based Approach for Seismic Design Spectra, 1565
- Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877

Restoration

- Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344
- Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix—Grid Composites, 210
- Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Market Fresh, 2019
- Past Perfect, 1996
- Phoenix Rises, 1999
- Remediation of a TCE Plume using a Three-Component Strategy, 1952

Retaining walls

- Active Thrust Due to Backfill Subject to Lines of Surcharge, 805
- Allowable Bearing Pressures of Bridge Sills on GRS Abutments with Flexible Facing, 855
- Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921
- General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909

SUBJECT INDEX

Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841

Performance and Analyses of Mechanically Stabilized Earth Walls in the Tecomán, Mexico Earthquake, 1395

Performance of a Cantilever Retaining Wall, 875

Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780

Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973

Retention basins

Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183

Retrofitting

Behavior and Modeling of Fiber Reinforced Polymer-Confining Concrete, 9

Concrete Beams Strengthened with Prestressed Near Surface Mounted CFRP, 194

Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484

Effects of FRP-Concrete Interface Bond Properties on the Performance of RC Beams Strengthened in Flexure with Externally Bonded FRP Sheets, 1345

Empirical Approach for Determining Ultimate FRP Strain in FRP-Strengthened Concrete Beams, 201

Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90

Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138

History and Aesthetics of the Bronx-Whitestone Bridge, 127

Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178

Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504

Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200

Multi-Objective Trade-Offs between Cost and Reliability in the Replacement of Water Mains, 1809

Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Quenching Thornton's Thirst, 2043

Recommendations for Seismic Evaluation and Retrofit of Low-Rise URM Structures, 1506

Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209

Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219

Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337

Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297

Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup — Field Application, 211

Risk management

Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199

Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485

Revetments

Flow-Induced Failure of Cable-Tied Blocks, 964

Scour Countermeasures for Wing-Wall Abutments, 988

Reynolds number

Effect of Convergence on Nonlinear Flow in Porous Media, 973

Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040

Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468

Rheological properties

Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441

Rheology

Deformation of Pores in Viscoplastic Soil Material, 22

Rigid pavements

Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749

Rational Approach for Base Type Selection, 1746

Rigid-body dynamics

Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537

Rigidity

Seismic Design Forces. I: Rigid Nonstructural Components, 1589

Riparian rights

Evaluation of Programs for Regulating Withdrawal of Surface Water under the Riparian Legal System, 1841

Riprap

Energy Dissipation on Reinforced Block Ramps, 1197

Reduction of Local Scour in the Vicinity of Bridge Pier Groups using Collars and Riprap, 947

Riprap Failure at Circular Bridge Piers, 966

Risk

Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350

Risk management

Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045

Catastrophe Risk Models for Wildfires in the Wildland — Urban Interface: What Insurers Need, 1938

Comparative Analysis of Water Vulnerability Assessment Methodologies, 1146

Comparative Injury and Fatality Risk Analysis of Building Trades, 342

Dam-Break Wave-Front Celerity, 938

Decision Methodology for Allocating Funds across Transportation Infrastructure Assets, 1137

Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264

- Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372
- Emerging Legal Risks for Construction Management Professionals, 1914
- Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701
- Evaluation of Legal Risks for E-Commerce in Construction, 1438
- Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139
- Health Risk Assessment for a Contaminated Site: A Case Study, 1964
- Hedgehog and Fox Strategies for Reducing Risks in Infrastructure Systems, 1935
- Interactions between Business and Financial Strategies of Large Engineering and Construction Firms, 1254
- Lessons from Katrina, 2009
- Managing Rock Blasting Work in Urban Environments, 1978
- Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162
- Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729
- Modeling Cost Escalation in Large Infrastructure Projects, 373
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310
- The Place of Fire, 1932
- Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429
- Reliability and Human Factors in Geotechnical Engineering, 836
- Risk Factors to Driver Fatalities in Single-Vehicle Crashes: Comparisons between Non-Motorcycle Drivers and Motorcyclists, 1687
- Risk Management: Lessons from Six Continents, 1244
- Safety Hazard Identification on Construction Projects, 308
- Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351
- Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980
- Structural Insulated Panels: Impact on the Residential Construction Process, 366
- Terrorism Risks and Blast Damage to Built Infrastructure, 1933
- Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161
- What is Preproject Planning, Anyway?, 1241
- River basins**
- Can Reservoir Storage Be Uneconomically Large?, 1854
- Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848
- Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111
- Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076
- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811
- Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling — Mekong River Basin, 1850
- River beds**
- Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965
- Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031
- River flow**
- Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940
- Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955
- Downstream Hydraulic Geometry of Alluvial Channels, 1067
- GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816
- Model Study of the Influence of Submerged Tidal Barriers on Estuarine Mixing and Exchange Processes, 1034
- One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977
- RiverSpill*: A National Application for Drinking Water Protection, 970
- River systems**
- Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229
- Watershed and River Systems Management Program: Overview of Capabilities, 1174
- Rivers**
- Bivariate Flood Frequency Analysis Using the Copula Method, 1086
- Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963
- Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975
- Downstream Hydraulic Geometry of Alluvial Channels, 1067
- Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992
- Experimental Investigation of Clear-Water Local Scour at Pile Groups, 1042
- Experimental Study of Ice Jam Formation Dynamics, 186
- Formation of Breakup Ice Jams at Bridges, 1056
- Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079
- Historic Discharge Measurements in Three Rhine Branches, 945
- Jackson River Modeling: 50-Year Perspective, 719
- Long-Term Dynamic Modeling Approach to Quantifying Attached Algal Growth and Associated Impacts on Dissolved Oxygen in the Lower Truckee River, Nevada, 739

SUBJECT INDEX

Roughness

- Multiobjective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- New Facility to Study River Abrasion Processes, 994
- Phoenix Rises, 1999
- Radioactive Waste Foams: Formation and Mitigation, 680
- Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Sediment Transport in River Models with Overbank Flows, 939
- Value of Instream Recreation in the Sonoran Desert, 1806
- Road construction**
- Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
- Use of an Infrared Joint Heater to Improve Longitudinal Joint Performance in Hot Mix Asphalt Pavements, 1380
- Road shoulders**
- Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670
- Roads**
- Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692
- Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993
- Reversible Lane Systems: Synthesis of Practice, 1766
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Roadside hazards**
- Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113
- Rock masses**
- Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 29
- Material Spatial Variability and Slope Stability for Weak Rock Masses, 796
- Normal Transmission of S-Wave across Parallel Fractures with Coulomb Slip Behavior, 498
- Rock mechanics**
- Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23
- Rockfill structures**
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
- Rocks**
- Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646
- Application of Weibull Statistics to the Tensile Strength of Rock Aggregates, 850
- Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849
- Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044
- Freezing - Thawing Model for Soils and Rocks, 1286
- Identification of Poroeleastic Constants of "Tight" Rocks from Laboratory Tests, 33

- Limitations in the Back-Analysis of Strength from Failures, 828
- Managing Rock Blasting Work in Urban Environments, 1978
- Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910
- Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5
- Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437
- Quantifying the Effect of Rock Strength Criteria on Minimum Drilling Mud Weight Prediction using Polyaxial Rock Strength Test Data, 38
- Shear Banding in Sandstone: Physical and Numerical Studies, 31
- Soil and Rock Behavior and Modeling, 2088
- Rods**
- Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480
- Roofs**
- Above it All, 2042
- Behavior of Complex Hat Shapes used as Truss Chord Members, 1501
- Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61
- Design Errors: Inefficiency or Carelessness of Designer?, 1383
- Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
- Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500
- Mechanics and Test Study of Two-Dimensional Flexible Membranes, 92
- New Design Procedure for Wind Uplift Resistance of Architectural Metal Roofing Systems, 100
- Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1499
- Structural Use of Glass, 98
- Rotation**
- Collapse during Construction of a Precast Girder Bridge, 1375
- Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785
- Rotation Response of a Rigid Body under Seismic Excitation, 472
- Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537
- Roughness**
- Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227
- Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196
- Equivalent Roughness Height for Plane Bed under Steady Flow, 1048
- Flood Plain Filling by a Monoclinical Flood Wave, 984
- Flow Resistance and Momentum Flux in Compound Open Channels, 1059
- Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914

Roughness

Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144

Routes

Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694

Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646

Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708

Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667

Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781

Simulated Annealing - Genetic Algorithm for Transit Network Optimization, 251

Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676

Routing

Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132

Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992

Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033

Operational Integration of Suburban Railway and Public Buses - Case Study of Mumbai, 1718

Rubber

Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723

Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440

Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275

Stress-Controlled Filtration with Compressible Particles, 858

Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824

Rubble-mound breakwaters

Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856

Runoff

Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734

ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064

Area-Rated Rational Coefficients for Portland Cement Pervious Concrete Pavement, 1098

Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff, 761

Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775

Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130

Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070

Development of Optimal and Physically Realizable Unit Hydrograph, 1134

Dioxin in Storm-Water Runoff in Houston, Texas, 770

Downstream Economic Benefits of Conservation Development, 1804

Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695

Enhanced Runoff Curve Number Model Incorporating Storm Duration and a Nonlinear I_a -S Relation, 1136

Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083

Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711

Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113

Grass Swale-Perforated Pipe Systems for Stormwater Management, 1170

Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080

Hydrologic Modeling Inventory: Cooperative Research Effort, 1175

Instantaneous Unit Hydrograph Evaluation for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas, 1218

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

NRCS (SCS) Synthetic Curvilinear Dimensionless Unit Hydrograph, 1236

Oil and Grease Measurement in Highway Runoff - Sampling Time and Event Mean Concentrations, 629

Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810

Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198

Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075

Physical Analog of the Linear Reservoir, 1089

Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643

Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078

Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801

Semidistributed Form of the Tank Model Coupled with Artificial Neural Networks, 1112

Start at the Source, 2001

Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210

Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102

Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750

Watershed and River Systems Management Program: Overview of Capabilities, 1174

Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815

Rural areas

Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Relationship between Speed, Lateral Placement, and Drivers' Eye Movement at Two-Lane Rural Highways, 1734

SUBJECT INDEX

Sand

- Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740
- Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665
- Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339
- Safety**
- Case for Drug Testing of Construction Workers, 1242
- Crane-Related Fatalities in the Construction Industry, 377
- Experimental Assessment of Wireless Construction Technologies, 388
- Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262
- Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371
- Intelligent Utility Locating Tool for Excavators, 379
- Lighting Requirements for Nighttime Highway Construction, 331
- Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162
- Minimizing Construction-Related Hazards in Airport Expansion Projects, 344
- Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257
- Preventing Disputes with Empathy, 1430
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537
- Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619
- Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740
- Safety Analysis of Moving Road Vehicles on a Long Bridge under Crosswind, 478
- Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534
- Safety Climate in Construction Industry: A Case Study in Hong Kong, 345
- Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351
- Security Barrier Design, 1981
- Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Safety factors**
- Four Alternative Definitions of the Fuzzy Safety Factor, 83
- General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909
- Structural Behavior of FRP Composite Bridge Deck Panels, 141
- Safety programs**
- Owner's Role in Construction Safety, 304
- Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393
- Salaries**
- What Does the Construction Industry Value in its Workers?, 392

- Saline ground water**
- Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Salinity**
- Calibration of Electromagnetic Induction for Regional Assessment of Soil Water Salinity in an Irrigated Valley, 1213
- Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227
- Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152
- Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers, 675
- Salt water**
- Numerical Model of Saltwater Transport toward a Pumping Well, 1103
- Salt water intrusion**
- Growth and Decay of Estuary Ice Cover, 184
- Model Study of the Influence of Submerged Tidal Barriers on Estuarine Mixing and Exchange Processes, 1034
- Sampling**
- Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798
- Collecting Driving Data to Support Mobile Source Emissions Estimation, 1566
- Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834
- Laboratory Simulation of Field Sampling: Comparison with Ideal Sampling and Field Data, 810
- Oil and Grease Measurement in Highway Runoff — Sampling Time and Event Mean Concentrations, 629
- Organic Hazardous Substances in Graywater from Swedish Households, 700
- Potential Computational Benefits of Geometric, Kinematic, and Behavioral Downsampling of Microscopic Traffic Network Simulation, 277
- Quality Control Method for Pile Driving, 879
- San Francisco**
- Experimental Evaluation of Compressive Behavior of Orthotropic Steel Plates for the New San Francisco — Oakland Bay Bridge, 118
- Regeneration, 2029
- Sand**
- Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Arsenic Removal from Water by Moving Bed Active Filtration, 583
- Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916

- Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623
- Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924
- Degradation of Sands due to Combined Sinusoidal Loading, 930
- Degree of Saturation and Liquefaction Resistances of Sand Improved with Sand Compaction Pile, 803
- Design of a Rigid Cutoff Wall, 34
- Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697
- Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698
- Determination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74
- Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48
- Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57
- Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802
- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Factors Affecting the Creep Behavior of Grouted Sand, 823
- How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37
- Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878
- Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820
- Influence Zone for End Bearing of Piles in Sand, 891
- Iron Oxide Coated Sand for Arsenic Removal: Investigation of Coating Parameters using Factorial Design Approach, 1962
- Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901
- Lateral Variations in Suspended Sediment Concentration over Dunes, 1066
- Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797
- Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 665
- Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905
- Observed Performance of Long Steel H-Piles Jacked into Sandy Soils, 779
- Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832
- Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914
- Principal Deviatoric Strain Increment Ratios for Sand having Inherent Transverse Isotropy, 47
- Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497
- Stability of Long Trenches in Sand Supported by Bentonite-Water Slurry, 4
- Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7
- Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824
- Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095
- Transport of Edible Oil Emulsions in Clayey Sands: 3D Sandbox Results and Model Validation, 1096
- Unified Sand Model Based on the Critical State and Generalized Plasticity, 580
- Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917
- Sandstone**
- Freezing – Thawing Model for Soils and Rocks, 1286
- Shear Banding in Sandstone: Physical and Numerical Studies, 31
- Sudden Failure of a Heavily Loaded Container Pavement, 912
- Sandwich structures**
- Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147
- Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203
- FEA of Complex Bridge System with FRP Composite Deck, 196
- Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63
- Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144
- Satellites**
- GPS Precise Point Positioning Software for Ground Control Point Establishment in Remote Sensing Applications, 1642
- Single Epoch Kinematic GPS Positioning Technique in Short Baseline, 1647
- Saturated soils**
- Degree of Saturation and Liquefaction Resistances of Sand Improved with Sand Compaction Pile, 803
- Hydraulic Damping of Saturated Poroelastic Soils During Steady-State Vibration, 523
- Relating Damping to Soil Permeability, 28
- Saturation**
- Modeling of Settlement in Saturated and Unsaturated Municipal Landfills, 39
- Saudi Arabia**
- Contractors' Views of the Potential Causes of Inconsistencies between Design and Construction in Saudi Arabia, 1372
- Scale effect**
- Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916
- Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297
- Scale models**
- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944

SUBJECT INDEX

Secondary flow

Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965

Scheduling

- 3D Scan Information Management System for Construction Management, 301
 - Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315
 - Comparative Study of University Courses on Critical-Path Method Scheduling, 358
 - Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290
 - Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388
 - Construction Scheduling and Progress Control using Geographical Information Systems, 285
 - Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects, 375
 - Critical Space Analysis, 335
 - Developing a Complexity Measure for Project Schedules, 343
 - Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
 - Effects of Schedule Pressure on Construction Performance, 306
 - Examining the Business Impact of Owner Commitment to Sustainability, 326
 - Irrigation Scheduling with Travel Times, 1188
 - Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
 - Modeling Cost Escalation in Large Infrastructure Projects, 373
 - Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
 - Object-Oriented Scheduling for Repetitive Projects with Soft Logics, 291
 - Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718
 - Optimal Planning and Scheduling for Repetitive Construction Projects, 1238
 - Particle Swarm Optimization for Preemptive Scheduling under Break and Resource-Constraints, 314
 - Permutation-Based Particle Swarm Optimization for Resource-Constrained Project Scheduling, 259
 - Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects, 333
 - Scheduling Construction Projects using Evolutionary Algorithm, 374
 - Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351
 - Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357
 - Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733
- Schools**
- Construction Delivery Systems: A Comparative Analysis of Their Performance within School Districts, 399
 - Influence of School Accessibility on Housing Values, 1785
- Soils Magic: Bringing Civil Engineering to the K-12 Classroom*, 1417
- Scour**
- Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897

- Clear Water Local Scour by Submerged Three-Dimensional Wall Jets: Effect of Tailwater Depth, 989
 - Control of Scour at Vertical Circular Piles under Waves and Current, 959
 - Countermeasure Toe Protection at Spill-Through Abutments, 956
 - Disturbance Caused by Bed Sills on the Slopes of Steep Streams, 1052
 - Experimental Investigation of Clear-Water Local Scour at Pile Groups, 1042
 - Fuzzy Logic Model for Equilibrium Scour Downstream of a Dam's Vertical Gate, 1038
 - Hydraulics of Plane Plunge Pool Scour, 976
 - Live-Bed Local Pier Scour Experiments, 995
 - Parallel Walls as an Abutment Scour Countermeasure, 982
 - Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5
 - Reduction of Local Scour in the Vicinity of Bridge Pier Groups using Collars and Riprap, 947
 - Riprap Failure at Circular Bridge Piers, 966
 - Scour around Bankline and Setback Abutments in Compound Channels, 933
 - Scour Countermeasures for Wing-Wall Abutments, 988
 - Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957
 - Similitude of Large-Scale Turbulence in Experiments on Local Scour at Cylinders, 934
 - Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980
- Sea floor**
- Stability of Submarine Pipelines on Liquefied Seabeds, 1878
- Sea walls**
- Computation of Short-Crested Deepwater Waves, 1870
- Sea water**
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152
- Sealing**
- Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323
 - Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778
- Seasonal variations**
- Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735
 - Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122
 - Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843
 - Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
 - Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811
- Secondary flow**
- Dynamics of Air Flow in Sewer Conduit Headspace, 1009
 - Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061

Security

- Addressing Security in Early Stages of Project Life Cycle, 1259
- Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798
- Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825
- Consequence Management Optimization for Contaminant Detection and Isolation, 1829
- Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828
- Disaster Recovery System Model with E-Government Case Study, 1937
- Identification of Contaminant Sources in Water Distribution Systems using Simulation - Optimization Method: Case Study, 1827
- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826
- Reduction of Physical Threats to Water Distribution Systems, 1822
- Security Barrier Design, 1981
- Sediment**
- Alternative Computation of Dean's Overfill Ratio, 1868
- Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890
- Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626
- Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975
- Coastal Dynamics 2005 -- State of the Practice, 2055
- Development and Application of a Phosphorus Model for a Shallow Oxbow Lake, 753
- Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196
- Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639
- Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965
- Formulas for Sediment Porosity and Settling Velocity, 1016
- Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113
- Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676
- Movement of Finite Amplitude Sediment Accumulations, 1003
- Nodal Point Relation for the Distribution of Sediments at Channel Bifurcation, 1043

- PCB Volatilization from Sediments, 594
- Predictability of Annual Sediment Loads based on Flood Events, 1108
- Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688
- Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Scour around Bankline and Setback Abutments in Compound Channels, 933
- Similitude of Large-Scale Turbulence in Experiments on Local Scour at Cylinders, 934
- Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294
- Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717
- Sediment concentration**
- Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961
- Lateral Variations in Suspended Sediment Concentration over Dunes, 1066
- Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109
- Sediment deposits**
- Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183
- Rate of Deposition of Fine Sediment from Suspension, 985
- Sediment load**
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625
- Sediment transport**
- Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993
- Control of Scour at Vertical Circular Piles under Waves and Current, 959
- Critical Bed Shear Stress for Unisize Sediment, 949
- Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053
- Estuarine and Coastal Modeling -- Proceedings of the Ninth International Conference, 2064
- Explicit Formulation of the Shields Diagram for Incipient Motion of Sediment, 1041
- Flow-Induced Failure of Cable-Tied Blocks, 964
- Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875
- Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- New Facility to Study River Abrasion Processes, 994
- Scale Independent Linear Behavior of Alluvial Channel Flow, 1002
- Scour Countermeasures for Wing-Wall Abutments, 988
- Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957
- Sediment Transport in River Models with Overbank Flows, 939
- Sediment Transport Model for Seepage Erosion of Stream Bank Sediment, 1133

SUBJECT INDEX

Seismic design

- Sediment Transport over Ripples in Oscillatory Flow, 950
- Sedimentation Engineering, 2084
- Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099
- Sediment yield**
- Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109
- Sedimentation**
- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664
- Improving Fluid Flow in Clarifiers using a Highly Porous Media, 726
- Life of Maithon Reservoir on Ground of Sedimentation: Case Study in India, 1019
- Sedimentation Engineering, 2084
- Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893
- Sedimentation tanks**
- Type II Settling Data Analysis, 598
- Seepage**
- Advances in Unsaturated Soil, Seepage, and Environmental Geotechnics, 2046
- Capillarity and Evaporation Exacerbated Seepage Losses from Unlined Channels, 1235
- DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892
- Design of a Rigid Cutoff Wall, 34
- Drought Storage Allocation Rules for Surface Reservoir Systems, 1842
- Earth Dam with Toe Drain on an Impervious Base, 50
- Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Sediment Transport Model for Seepage Erosion of Stream Bank Sediment, 1133
- Seepage to a Drainage Ditch and Optimization of Its Shape, 1234
- Segmented elements**
- Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Seismic analysis**
- Application of Internally Damped Shearbeam Model to Analysis of Buildings under Earthquakes: Robust Procedure for Quick Evaluation of Seismic Performance, 1550
- Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
- Coupled Building Control Considering the Effects of Building/Connector Configuration, 1524
- Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834
- Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30
- Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494
- Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1554

- Testing Protocol for Short Links in Eccentrically Braced Frames, 1555
- Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537
- Seismic design**
- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Development, Shake Table Testing, and Design of FRP Seismic Restrainers, 152
- Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526
- Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557
- Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119
- Fourway: Graphical Tool for Performance-Based Earthquake Engineering, 1564
- Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527
- Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444
- Improved Strength Model for Interior Flat-Plate-Column Connections Subject to Unbalanced Moment, 1509
- New Measure for Severity of Near-Source Seismic Ground Motion, 1636
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Optimum Arm Geometry for Ductile Modular Connectors, 1510
- Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453
- Racking Performance of Tall Unblocked Shear Walls, 1452
- Rehabilitation of Masonry Walls using Unobtrusive FRP Techniques for Enhanced Out-of-Plane Seismic Resistance, 209
- Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842
- Return Period of Recorded Ground Motion, 1522
- Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568
- Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539
- Seismic Design Forces. I: Rigid Nonstructural Components, 1589
- Seismic Design Forces. II: Flexible Nonstructural Components, 1590
- Seismic Design Optimization of Steel Building Frameworks, 1466
- Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928
- Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337
- Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599
- Stability Requirements for Beams in Seismic Steel Moment Frames, 1570
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1554
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1555

- Unloading and Reloading Stress – Strain Model for Confined Concrete, 1449
- Seismic effects**
- Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609
- Analyses of a Two-Story Unreinforced Masonry Building, 1505
- Assessment of Potential Seismic Damage to Residential Unreinforced Masonry Buildings in Northern Illinois, 1979
- Bayesian State Estimation Method for Nonlinear Systems and its Application to Recorded Seismic Response, 474
- Centrifuge Model Studies of the Seismic Response of Reinforced Soil Slopes, 813
- CPT-Based Probabilistic and Deterministic Assessment of in Situ Seismic Soil Liquefaction Potential, 873
- Effects of Ground Motion Parameters and Cyclic Degradation Behavior on Collapse Response of Steel Moment-Resisting Frames, 1592
- Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115
- Energy Evaluation for Ramberg – Osgood Hysteretic Model, 529
- Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548
- Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix – Grid Composites, 210
- Experimental Stiffness and Seismic Response of Pall-Type Steel Storage Rack Connectors, 1987
- Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
- Ground Modification and Seismic Mitigation, 2072
- HAZUS Earthquake Loss Estimation Methods, 1927
- Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504
- Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844
- Loss Estimation Analysis of Flat-Slab Structures, 1925
- Modal Seismic Control of Building Frames by Artificial Neural Network, 252
- More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604
- New Approach for Seismic Nonlinear Analysis of Inelastic Framed Structures, 535
- Observations on the Reliability of Alternative Multiple-Mode Pushover Analysis Methods, 1485
- ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800
- Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504
- Orthogonal Effects in Seismic Analysis of Skewed Bridges, 116
- Property Modification Factors for Seismically Isolated Bridges, 140
- Recommendations for Seismic Evaluation and Retrofit of Low-Rise URM Structures, 1506
- Regenesis, 2029
- Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219
- Return Period of Recorded Ground Motion, 1522
- Rotation Response of a Rigid Body under Seismic Excitation, 472
- Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474
- Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495
- Seismic Evaluation of Steel Moment Frame Buildings Designed using Different *R*-Values, 1583
- Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139
- Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471
- Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472
- Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513
- Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591
- Seismic Response of a Composite Landfill Cover, 819
- Seismic Response of High Voltage Electrical Transformer-Bushing Systems, 1467
- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Semiactive Fuzzy Control of the Seismic Response of Building Frames, 1519
- Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610
- Site-Specific Validation of Random Vibration Theory-Based Seismic Site Response Analysis, 863
- Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877
- Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10
- Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622
- Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623
- Seismic tests**
- Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611
- Selection**
- Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387
- Sensitivity analysis**
- Assessing the Hydrologic Performance of Best Management Practices, 1101
- Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830
- Efficient Computation of Response Sensitivities for Inelastic Structures, 1464
- Force Identification Based on Sensitivity in Time Domain, 544
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171

SUBJECT INDEX

- Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579
- Multilayer Averaged and Moment Equations for One-Dimensional Open-Channel Flows, 1013
- Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055
- Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19
- Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574
- Sensitivity Analyses and Sensitivity Coefficients of Standardized Daily ASCE-Penman-Monteith Equation, 1228
- Sensitivity Analysis of Soil Hydraulic Properties on Subsurface Water Flow in Furrows, 1211
- Slug Test Analysis in Vertical Cutoff Walls. II: Applications, 818
- Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547
- Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102
- Sensors**
- Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566
- Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567
- Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724
- Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666
- Bat Echolocation Interfering with Ultrasonic Sensors, 1069
- Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825
- Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Effects of Strain and Damage on Strain-Sensing Ability of Carbon Fiber Cement, 1299
- Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526
- Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Failure Mechanisms and Deployment Accuracy of Elastic-Memory Composites, 75
- Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469
- Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- System for In-Service Strain Monitoring of Ordinary Bridges, 170
- Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686
- Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275
- Service life**
- In-Service Durability Performance of Water Tanks, 1377
- Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138

Shake table tests

- Markov-Based Optimization Model for Building Facilities Management, 407
- Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Serviceability**
- Critical Review of Deflection Formulas for FRP-RC Members, 206
- Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385
- Settlement**
- Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849
- Estimate of Landfill Settlements due to Mechanical and Decompositional Processes, 837
- In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Modeling of Settlement in Saturated and Unsaturated Municipal Landfills, 39
- Settling velocity**
- Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695
- Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733
- Formulas for Sediment Porosity and Settling Velocity, 1016
- Sewage**
- Formation of Aerobic Granules with Domestic Sewage, 677
- Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601
- Statistical Modeling of the Serviceability of Sewage Pumps, 1039
- Sewer pipes**
- Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
- Sewers**
- Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737
- Dynamics of Air Flow in Sewer Conduit Headspace, 1009
- Godunov-Type Solutions for Transient Flows in Sewers, 1010
- Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Optimal Layout of Sewer Systems: A Deterministic versus a Stochastic Model, 1018
- Statistical Modeling of the Serviceability of Sewage Pumps, 1039
- Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974
- Shafts**
- Experimental Study of Flow in a Vortex Drop Shaft, 937
- Shake table tests**
- Comparison of Tests of a Nonlinear Structure using a Shake Table and the EFT Method, 1584

Shake table tests

- Development, Shake Table Testing, and Design of FRP Seismic Restrainers, 152
- Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447
- Experimental Stiffness and Seismic Response of Parallel-Type Steel Storage Rack Connectors, 1987
- Internet-Enabled Remote Observation and Control of a Shake Table Experiment, 271
- Rotation Response of a Rigid Body under Seismic Excitation, 472
- Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610

Shallow foundations

- Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842
- Resistance Factors for Use in Shallow Foundation LRFD, 889
- Undrained Bearing Capacity of Square and Rectangular Footings, 27

Shallow water

- 2D Shallow-Water Model using Unstructured Finite-Volume Methods, 958
- Divergence Form for Bed Slope Source Term in Shallow Water Equations, 997
- Entrainment Properties of Plane Surface-Jets in Shallow Current, 967
- Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models, 443
- Limitations of Depth-Averaged Modeling for Shallow Wakes, 1004
- Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024
- One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977
- Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255
- Refinement Indicator for Mesh Adaption in Shallow-Water Modeling, 1015
- Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968
- Well-Balanced Finite-Volume Model for Long-Wave Runup, 1866

Shape

- Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916
- Effect of Coarse Aggregate Morphology on Permanent Deformation Behavior of Hot Mix Asphalt, 1726
- Form-Finding of Nonregular Tensegrity Systems, 1580
- Formulas for Sediment Porosity and Settling Velocity, 1016
- Multiple Optimum Size/Shape/Topology Designs for Skeletal Structures using a Genetic Algorithm, 1552
- Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832
- Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72
- Shape Selection for Lattice Structures, 1608

Shape memory effect

- Failure Mechanisms and Deployment Accuracy of Elastic-Memory Composites, 75

2006 ASCE TRANSACTIONS

Shear

- Behavior of a Fiber-Reinforced Bentonite at Large Shear Displacements, 918
- Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
- CFRP Strengthening for Punching Shear of Interior Slab — Column Connections, 230
- Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538
- Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
- High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173
- Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440
- Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905
- Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785
- Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192
- Properties of Asphalt Concrete Layer Interfaces, 1312
- Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539
- Shear Live-Load Distribution Factors for I-Girder Bridges, 124
- Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Strength and Behavior of Cold-Formed Steel Z-Sections Subjected to Major Axis Bending, 1600

Shear deformation

- Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225
- Behavior of Reinforced Concrete Column — Steel Beam Roof Level T-Connections under Displacement Reversals, 1540
- Buckling of Multiwalled Carbon Nanotubes using Timoshenko Beam Theory, 534
- Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494
- Fracture Analysis of Shear Deformable Bi-Material Interface, 466
- Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491
- Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope, 897
- Shear Response of Concrete-Filled FRP Composite, 1533

Shear distribution

- Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160

Shear failure

- Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158
- Continuous Interface Elements Subject to Large Shear Deformations, 21
- Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487
- Improved Strength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509

SUBJECT INDEX

Shear flow

Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460

Shear lag

Transverse Analysis of Strutted Box Girder Bridges, 107

Shear modulus

Degradation of Sands due to Combined Sinusoidal Loading, 930

Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275

Small-Strain Behavior of Granular Soils. I: Model for Cemented and Uncemented Sands and Gravels, 876

Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808

Shear resistance

Behavior of Reinforced Concrete Column — Steel Beam Roof Level T-Connections under Displacement Reversals, 1540

Shear Resistance of FRP RC Beams: Experimental Study, 235

Shear Response of Concrete-Filled FRP Composite, 1533

Shear strain

Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834

Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Shear strength

Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158

Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Critical Inclination of Compression Struts in Concrete Beams, 1508

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237

Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492

Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478

Experimental Study of Macro- and Microbehavior of Natural Diatomite, 833

Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306

Improved STrength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509

Interpretation of Impact Penetration Measurements in Soft Clays, 848

Laboratory Simulation of Field Sampling: Comparison with Ideal Sampling and Field Data, 810

Limitations in the Back-Analysis of Strength from Failures, 828

Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73

Mechanics of Web Panel Postbuckling Behavior in Shear, 1595

Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842

Shear Behavior of Corrugated Web Bridge Girders, 1457

Shear Resistance of FRP RC Beams: Experimental Study, 235

Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815

Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Suction Stress Characteristic Curve for Unsaturated Soil, 791

Unsaturated Soils 2006, 2096

Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292

Shear stress

Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899

Critical Bed Shear Stress for Unisize Sediment, 949

Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990

Equivalent Roughness Height for Plane Bed under Steady Flow, 1048

Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220

Explicit Formulation of the Shields Diagram for Incipient Motion of Sediment, 1041

Flow-Induced Failure of Cable-Tied Blocks, 964

Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468

Particle Image Velocity Measurements of Uniaxial and Hydraulic Jumps, 1060

Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461

Probability Density Function of Instantaneous Drag Forces and Shear Stresses on a Bed, 1050

Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485

Turbulent Boundary Layer Flows above a Porous Surface Subject to Flow Injection, 553

Shear tests

Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158

Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57

Principal Deviatoric Strain Increment Ratios for Sand having Inherent Transverse Isotropy, 47

Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Shear walls

Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982

- Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives, 1497
- Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381
- Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496
- Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
- Lateral Stiffness of Shear Walls with Openings, 1621
- Learning Seismic Design from the Earthquake Itself, 1986
- Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
- Multilaminate Macromodel for Concrete Masonry: Formulation and Verification, 1635
- Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453
- Racking Performance of Tall Unblocked Shear Walls, 1452
- Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494
- Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495
- Shear waves**
- Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924
- Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878
- On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554
- Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541
- Sheet flow**
- Equivalent Roughness Height for Plane Bed under Steady Flow, 1048
- Sheet piles**
- Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333
- Moment Capacities and Deflection Limits of PFRP Sheet Piles, 241
- Sheets**
- Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222
- Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264
- Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237
- Evaluation of Bending Strength of RC Beams Strengthened with FRP Sheets, 220
- Strengthening of Interior Slab — Column Connections using a Combination of FRP Sheets and Steel Bolts, 229
- Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup — Field Application, 211
- Shell structures**
- Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60
- Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234

- Nine-Node Resultant-Stress Shell Element for Free Vibration and Large Deflection of Composite Laminates, 69
- Shells**
- Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81
- Axisymmetric Nonlinear Stability of a Shallow Conical Shell with a Spherical Cap of Arbitrary Variable Shell Thickness, 555
- Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575
- Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574
- Ships**
- Experimental Study on the Hydrodynamics of a Floating, Production, Storage, and Offloading System, 1861
- Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860
- Shock waves**
- Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024
- Shopping centers**
- Market Fresh, 2019
- Temporal Variation in Consumer Spatial Behavior in Shopping Streets, 1792
- Shore protection**
- Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591
- Shoreline changes**
- Discriminating Modes of Shoreline Response to Offshore-Detached Structures, 1873
- Shotcrete**
- Shotcrete for Underground Support X, 2086
- Shrinkage**
- Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266
- Creep Buckling of Shallow Parabolic Concrete Arches, 1601
- Long-Term Behavior of Precast Segmental Cantilever Bridges, 137
- Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440
- Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441
- Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881
- Preflex Beams: A Method of Calculation of Creep and Shrinkage Effects, 108
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292
- Silica**
- Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772

SUBJECT INDEX

- Role of an Amorphous Silica in Portland Cement Concrete, 1348
- Treatment of Polishing Wastewater from Semiconductor Manufacturer by Dispersed Air Flotation, 1588
- Silos**
 - Design Analysis for Buckling of Tanks and Silos, 1443
 - Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
 - Influence of Hopper Eccentricity on Discharge of Cylindrical Mass Flow Silos with Rigid Walls, 542
- Silts**
 - Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924
 - Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802
 - Liquefaction, Cyclic Mobility, and Failure of Silt, 845
 - Liquefaction Susceptibility Criteria for Silts and Clays, 908
 - Practical Model of Frost Heave in Clay, 786
- Similitude**
 - Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759
- Simulation**
 - 3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954
 - Actuated Signal Operations of Congested Diamond Interchanges, 1750
 - Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624
 - ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
 - Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317
 - Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656
 - Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315
 - Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
 - Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
 - Bayesian State Estimation Method for Nonlinear Systems and its Application to Recorded Seismic Response, 474
 - Bayesian Updating Application into Simulation in the North Edmonton Sanitary Trunk Tunnel Project, 376
 - Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520
 - Case Study: Numerical Simulations of Debris Flow below Slože, Slovenia, 943
 - Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169
 - Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131
 - Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
 - Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67

Simulation

- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Crashworthiness of Motor Vehicle and Traffic Light Pole in Frontal Collisions, 1743
- Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56
- Determination of Point Displacements in the Geodetic Network, 1648
- Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697
- Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698
- Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges., 1732
- Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053
- Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Economically Driven Simulation of Regional Water Systems: Friant-Kern, California, 1849
- Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428
- Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843
- Effectiveness of Learning Transportation Network Growth through Simulation, 1410
- Evaluating the Impact of Vessel-Traffic Interference on Container Terminal Capacity, 1862
- Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856
- Experimental Study and 3D Numerical Simulations for a Free-Overflow Spillway, 1022
- Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481
- Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012
- Geomechanics II — Testing, Modeling, and Simulation, 2069
- Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
- Identification of Contaminant Sources in Water Distribution Systems using Simulation — Optimization Method: Case Study, 1827
- Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987
- Incomplete Information Analysis for the Origin-Destination Survey Table, 1794
- Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1328
- Laboratory Simulation of Field Sampling: Comparison with Ideal Sampling and Field Data, 810
- Lagrangian Approach to Structural Collapse Simulation, 516
- Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468
- Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996

- Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73
- Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
- Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401
- Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700
- Modified K-NN Model for Stochastic Streamflow Simulation, 1110
- Multi-Agent Framework for General-Purpose Situational Simulations in the Construction Management Domain, 261
- Multilayer Averaged and Moment Equations for One-Dimensional Open-Channel Flows, 1013
- Multivariate Simulation and Multimodal Dependence Modeling of Vehicle Axle Weights with Copulas, 1767
- Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389
- Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974
- Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
- Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461
- Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020
- Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691
- Optimal Design in the Presence of Modeling Uncertainties, 77
- Optimal Pumping from Skimming Wells, 1118
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Particle Swarm Optimization-Supported Simulation for Construction Operations, 413
- Potential Computational Benefits of Geometric, Kinematic, and Behavioral Downsampling of Microscopic Traffic Network Simulation, 277
- Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911
- Refinement Indicator for Mesh Adaption in Shallow-Water Modeling, 1015
- Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects, 333
- Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247
- Simulated Annealing — Genetic Algorithm for Transit Network Optimization, 251
- Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563
- Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942
- Simulation of Multidimensional Binary Random Fields with Application to Modeling of Two-Phase Random Media, 496
- Simultaneous and Sequential Photocatalysis of TCE and PCE, 586
- Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630
- Simultaneous Removal of Phenol and Nitrate in an Anaerobic Bioreactor, 722
- Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699
- Stimulating Construction Innovation in Singapore through the National System of Innovation, 394
- Stochastic Streamflow Simulation using SAMS-2003, 1177
- Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797
- Technology Evaluation of Hydrogen Light-Duty Vehicles, 663
- Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148
- Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902
- Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751
- Uncertainty Analysis for Coupled Watershed and Water Quality Modeling Systems, 1838
- Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676
- Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093
- UTW Behavior on Asphalt Pavements Tested with HWLS, 1760
- Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062
- Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733
- Vehicle Collision with Bridge Piers, 1
- Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281
- Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893
- Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815
- Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273
- Simulation models**
- Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734
- Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408
- Explicit Integration Method for Extended-Period Simulation of Water Distribution Systems, 969
- Geotechnical Physical Modeling for Education: Learning Theory Approach, 1431
- Identification of Groundwater Pollution Sources using GA-Based Linked Simulation Optimization Model, 1081

SUBJECT INDEX

Slope stability

Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606

Plastic Hinge Integration Methods for Force-Based Beam — Column Elements, 1462

Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207

Transverse Pavement Grooving against Hydroplaning. I: Simulation Model, 1709

Singapore

Algorithm Fusion for Detecting Incidents on Singapore's Central Expressway, 1696

Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387

Incorporating Contractual Incentives to Facilitate Relational Contracting, 1412

Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286

Stimulating Construction Innovation in Singapore through the National System of Innovation, 394

Site evaluation

Borrowing Residential Trip Generation Rates, 1674

Computer-Aided Site Layout Planning, 302

Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Natural Attenuation Assessment using Mineral Data, 1968

Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257

Site and Geomaterial Characterization, 2087

Site investigation

Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882

Protection Measures against Mine Subsidence Taken at a Building Site, 1278

Site and Geomaterial Characterization, 2087

Site preparation, construction

Computer-Aided Site Layout Planning, 302

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Site selection

Strategic Decision Analysis for Selection of Landfill Sites, 1652

Size

Multiple Optimum Size/Shape/Topology Designs for Skeletal Structures using a Genetic Algorithm, 1552

Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832

Size effect

Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518

Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507

Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507

Size Effect on Strength of Quasi — Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558

Size Effects and the Dynamic Response of Plain Concrete, 1315

Study on the Average Fracture Energy for Crack Propagation in Concrete, 1357

Skewed structures

Girder Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121

Skin friction

Drag Force on Single Piles in Clay Subjected to Surcharge Loading, 20

Slabs

Design Charts for Helicoidal Stair Slabs with Landing at Midspan, 1470

Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484

Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473

Fatigue Analysis of RC Slabs and Repaired RC Slabs Based on Crack Bridging Degradation Concept, 1532

Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936

Loss Estimation Analysis of Flat-Slab Structures, 1925

Reduction of Vibrations due to Foundation Slabs, 825

Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474

Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162

Strengthening of Interior Slab — Column Connections using a Combination of FRP Sheets and Steel Bolts, 229

Slag

Assessing the Carbonation Behavior of Cementitious Materials, 1351

Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 665

Modeling Compressive Strength Development in Florida Concrete, 1362

Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285

Slenderness ratio

Nonlinear EI Equation for Slender Composite Columns Bending about the Minor Axis, 1596

Stability Requirements for Beams in Seismic Steel Moment Frames, 1570

Sliding

Plane Impulse Waves in Reservoirs, 1888

Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537

Slope stability

Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921

Centrifuge Model Studies of the Seismic Response of Reinforced Soil Slopes, 813

Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890

Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14

Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582

General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909

GIS-Based Implementation of Three-Dimensional Limit Equilibrium Approach of Slope Stability, 839

Slope stability

Material Spatial Variability and Slope Stability for Weak Rock Masses, 796

Slopes

Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444

Antiplane (SH) Waves Diffraction by a Semicircular Cylindrical Hill Revisited: An Improved Analytic Wave Series Solution, 550

Considerations from the Design of Intercepting Drainage for Collecting Water from Seep Areas, 1231

Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858

Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044

Disturbance Caused by Bed Sills on the Slopes of Steep Streams, 1052

Divergence Form for Bed Slope Source Term in Shallow Water Equations, 997

Flow Resistance of Rock Chutes with Protruding Boulders, 986

Fuzzy Analysis of Slope-Area Discharge Estimates, 1171

Hydraulic Analysis and Direct Design of Multiple Outlets Pipelines Laid on Flat and Sloping Lands, 1226

Hydraulic Jumps in Sloping Channels: Sequent Depth Ratio, 1037

Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731

Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901

Seismic Bearing Capacity of Shallow Strip Footings Embedded in Slope, 30

Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope, 897

Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7

Transformation, Attenuation, Setup, and Undertow of Internal Waves on a Gentle Slope, 1901

Sludge

Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669

Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670

Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635

Enhancing Bioremediation with Enzymatic Processes: A Review, 1947

Fate and Modeling of Pentachlorophenol Degradation in a Laboratory-Scale Anaerobic Sludge Digester, 689

Formation of Aerobic Granules with Domestic Sewage, 677

Microstructure and Compactive Instabilities of a Stabilized Residue, 1290

Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691

Respirometric Assessment of Primary Sludge Fermentation Products, 590

Simple Rule-Based Algorithm for Optimizing Volatile Fatty Acids Production in Primary Sludge Fermentation Schemes, 747

Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699

2006 ASCE TRANSACTIONS

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267

Slurries

High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347

Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820

Stability of Long Trenches in Sand Supported by Bentonite-Water Slurry, 4

Slurry trenches

Stability of Long Trenches in Sand Supported by Bentonite-Water Slurry, 4

Slurry walls

Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892

Smoke

Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303

Snow

Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114

Handling of Urban Snow with Regard to Snow Quality, 612

Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093

Snow cover

Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808

Snow loads

Design of Window Glass for Lateral Pressures, 95

Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553

Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618

Snowmelt

Gridded Snowmelt and Rainfall-Runoff CWMS Hydrologic Modeling of the Red River of the North Basin, 1080

Handling of Urban Snow with Regard to Snow Quality, 612

Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808

Snowpacks

Handling of Urban Snow with Regard to Snow Quality, 612

Snowstorms

Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114

Social factors

Exploratory Study of Knowledge Sharing in Contracting Companies: A Sociotechnical Perspective, 380

Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Case Study, 1413

SUBJECT INDEX

Sodium

- Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771
- Modeling the Sorption of Fluoride onto Alumina, 608

Soft soils

- Bearing Capacity of Piles Rafts on Soft Clay Soils, 927
- Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862
- Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45
- Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928

Softening

- Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600
- Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653

Soil analysis

- In Field Soil Characterization: Approach Based on Texture Image Analysis, 787
- Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627

Soil cement

- Strength and Elastic Properties of Stabilized Mud Block Masonry using Cement-Soil Mortars, 1313
- Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265
- Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738

Soil classification

- Determination of Atterberg Limits: Uncertainty and Implications, 816
- Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272

Soil compaction

- BCD: A Soil Modulus Device for Compaction Control, 788
- Compaction Delay Effects on Properties of Lime-Treated Soil, 1287
- Factors Affecting Portable Falling Weight Deflectometer Measurements, 853
- Performance of a Cantilever Retaining Wall, 875
- Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272
- Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782

Soil compression

- Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806
- Deformation of Pores in Viscoplastic Soil Material, 22

Soil conditions

- Degree of Saturation and Liquefaction Resistances of Sand Improved with Sand Compaction Pile, 803

Soil consolidation

- Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45
- Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892
- Plane Strain and Axially Symmetric Consolidation in Unsaturated Soils, 24

Soil pollution

- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17

Soil deformation

- Deformation of Pores in Viscoplastic Soil Material, 22
- Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884
- Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
- Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781

Soil dynamics

- Hydraulic Damping of Saturated Poroeastic Soils: During Steady-State Vibration, 523
- ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800
- Seismic Site Response for Near-Fault Forward Directivity Ground Motions, 928
- Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46

Soil gas

- Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607
- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599

Soil mechanics

- Unsaturated Soil Mechanics in Engineering Practice, 807

Soil mixing

- Development and Production of Ready-Mixed Soil Material, 1354
- Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733
- Field Evaluation of Crushed Glass - Dredged Material Blends, 831
- Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830
- Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738

Soil modulus

- BCD: A Soil Modulus Device for Compaction Control, 788
- ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800

Soil nailing

- Soil - Nail Pullout Interaction in Loose Fill Materials, 36

Soil permeability

- Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773
- Relating Damping to Soil Permeability, 28
- Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225

Soil pollution

- Advanced Oxidation for Treatment of Aqueous Extracts from EDTA Extraction of Pb and Zn Contaminated Soil, 740

Soil pollution

- Application of Fenton's Reagent to Remediate Diesel Contaminated Soils, 1941
- Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
- Citric Acid Enhanced Remediation of Soils Contaminated with Uranium by Soil Flushing and Soil Washing, 609
- Cyclodextrin-Enhanced Electrokinetic Remediation of Soils Contaminated with 2,4-Dinitrotoluene, 718
- Diagnostic Curve for Estimating Soil Dispersivity and Instantaneously Injected Mass, 1194
- EDTA-Enhanced Washing for Remediation of Pb- and/or Zn-Contaminated Soils, 730
- Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641
- Evaluation of Contaminant Resuspension Potential during Cap Placement at Two Dissimilar Sites, 639
- Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959
- Low-Temperature Soil Heating using Renewable Energy, 659
- Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705
- PCB Volatilization from Sediments, 594
- Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687
- Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627
- Treating Soil PCP at Optimal Conditions using Heme and Peroxide, 678
- Treatment of Contaminated Soils and Groundwater using ISCO, 1939
- Soil pressure**
- Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366
- Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
- Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781
- Soil properties**
- Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792
- Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181
- In Field Soil Characterization: Approach Based on Texture Image Analysis, 787
- Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73
- Sensitivity Analysis of Soil Hydraulic Properties on Subsurface Water Flow in Furrows, 1211
- Unsaturated Soils 2006, 2096
- Soil resistance**
- Soil Restraint to Oblique Movement of Buried Pipes in Dense Sand, 1681
- Soil sampling**
- Design of Compacted Lateritic Soil Liners and Covers, 798

2006 ASCE TRANSACTIONS

- Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797
- Soil stabilization**
- Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921
- Centrifuge Model Studies of the Seismic Response of Reinforced Soil Slopes, 813
- Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293
- Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929
- General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909
- Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841
- Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289
- Reclaimed Hydrated Fly Ash as a Geomaterial, 1283
- Soil Stabilization in Semi-arid and Arid Land Agriculture, 1282
- Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285
- Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Soil strength**
- Liquefaction Susceptibility Criteria for Silts and Clays, 908
- Soil structure**
- Advances in Earth Structures — Research to Practice, 2045
- Deformation of Pores in Viscoplastic Soil Material, 22
- Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860
- General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909
- Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64
- Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824
- Soil suction**
- Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
- Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815
- Unsaturated Soils 2006, 2096
- Soil tests**
- Monotonic and Cyclic Behavior of Two Calcareous Soils of Different Origins, 925
- Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10
- Soil treatment**
- Application of Fenton's Reagent to Remediate Diesel Contaminated Soils, 1941
- Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
- Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595

SUBJECT INDEX

- Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Character of Organic Matter in Soil-Aquifer Treatment Systems, 748
- Cyclodextrin-Enhanced Electrokinetic Remediation of Soils Contaminated with 2,4-Dinitrotoluene, 718
- Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
- Heavy Metals Removal from Acidic and Saline Soil Leachate using Either Electrochemical Coagulation or Chemical Precipitation, 660
- Laboratory-Scale Evaluation of Cr(VI) Removal from Clay by Electrokinetics Incorporated with Fe(O) Barrier, 1959
- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599
- Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705
- Treating Soil PCP at Optimal Conditions using Heme and Peroxide, 678
- Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738
- Soil water**
- Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43
- Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44
- Assessment of Soil Moisture Dynamics of the Nebraska Sandhills using Long-Term Measurements and a Hydrology Model, 1216
- BCD: A Soil Modulus Device for Compaction Control, 788
- Considerations from the Design of Intercepting Drainage for Collecting Water from Seep Areas, 1231
- Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181
- Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
- Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846
- Soil-pile interaction**
- Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793
- Soil-Pile Response to Blast-Induced Lateral Spreading. II: Analysis and Assessment of the p - y Method, 794
- Soils**
- Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Calibration of Electromagnetic Induction for Regional Assessment of Soil Water Salinity in an Irrigated Valley, 1213
- Freezing - Thawing Model for Soils and Rocks, 1286
- Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773
- Limitations in the Back-Analysis of Strength from Failures, 828
- Mitigation of Soil Movements from Pile Driving, 1977
- Nonlinear Stress-Strain Relationship of Soil Reinforced with Flexible Geofibers, 851
- Soil and Rock Behavior and Modeling, 2088
- Thermal Transfer Analysis of a Freezing Soil Medium with an Embedded Pipeline, 181

Solitary waves

- Soil-structure interaction**
- Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49
- Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611
- Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1975
- Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366
- Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
- Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390
- A Robust Macrolelement Model for Soil - Pile Interaction under Cyclic Loads, 898
- Simplified Model for Vertical Vibrations of Surface Foundations, 838
- Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16
- Solar energy**
- Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93
- Hydrogen Production by Plasma Electrolysis, 431
- Solid waste management**
- Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671
- Solid wastes**
- Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607
- Estimate of Landfill Settlements due to Mechanical and Decompositional Processes, 837
- Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654
- Seismic Response of a Composite Landfill Cover, 819
- TCLP Heavy Metal Leaching of Personal Computer Components, 638
- Solidification**
- Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294
- Solids**
- Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670
- The Role of Bioflocculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655
- Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744
- Solids flow**
- Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943
- Effect of Contact Force Models on Granular Flow Dynamics, 566
- Three-Dimensional Topography of Debris-Flow Fan, 962
- Solitary waves**
- Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488

Solitary waves

Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456

Well-Balanced Finite-Volume Model for Long-Wave Runup, 1866

Solutes

Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061

Numerical Modeling and Analysis of Solute Velocity and Macrodistribution for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104

Parametric Study of One - Dimensional Solute Transport in Deformable Porous Media, 870

Regional Salinity Modeling for Conjunctive Water Use Planning in Khari Command, 1207

Spatial Moment Analysis for One-Dimensional Nonisothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106

Solutions

Accurate Representation of External Force in Time History Analysis, 438

Solvents

Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657

Sorption

Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293

Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907

Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518

Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657

Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302

Factors Influencing Arsenite Removal by Zero-Valent Iron, 749

Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773

Influence of Pore-Water Velocity on Transport Behavior of Cadmium: Equilibrium versus Nonequilibrium, 1958

Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746

Modeling the Sorption of Fluoride onto Alumina, 608

Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinyl Ester Binder, 1340

Numerical Modeling and Analysis of Solute Velocity and Macrodistribution for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104

Optimal Design of a Compacted Soil Liner Containing Sorptive Amendments, 686

Removal of Toluene Vapor with Dispersed Activated Carbon, 622

Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757

Simultaneous Removal of Cd and Cr(VI) using Fe-Loaded Zeolite, 632

2006 ASCE TRANSACTIONS

Vermiculite Filtration for Removal of Oil from Water, 1957

South Africa

Metakaolin as an Extender in South African Cement, 1332

South Carolina

Adoption of the International Residential Code in a High Natural Hazards Region — An Overview, 85

South Dakota

Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169

Space construction

Earth & Space 2006: Engineering, Construction, and Operations in Challenging Environment, 2061

Moon dust and More, 2010

Moon dust and More, 2011

Structural Design of a Lunar Habitat, 71

Space exploration

Earth & Space 2006: Engineering, Construction, and Operations in Challenging Environment, 2061

Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73

New Approach to Mission Design Based on the Fundamental Equations of Motion, 65

Spacing

Pile Spacing Effects on Lateral Pile Group Behavior: Load Tests, 894

Pile Spacing Effects on Lateral Pile Group Behavior: Analysis, 895

Spain

Downside Risks in Construction Projects Developed by the Civil Service: The Case of Spain, 372

Spalling

Analyses of Heated Concrete Spalling due to Restrained Thermal Dilation: Application to the "Chunnel" Fire, 552

Spatial analysis

Computer-Aided Site Layout Planning, 302

Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886

Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573

Spatial data

Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886

Spatial distribution

CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799

Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128

Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225

Spectra

Classifying River Waves by the Saint Venant Equations Decoupled in the Laplacian Frequency Domain, 998

SUBJECT INDEX

Spectral analysis

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591

Spherical shells

Identification and Modeling of Permanent Deformations of Asphalt Concrete, 458

Spills

Countermeasure Toe Protection at Spill-Through Abutments, 956

RiverSpill: A National Application for Drinking Water Protection, 970

Spillways

Bottom Aeration of Stepped Spillways, 1014

Case Study of an S-Shaped Spillway using Physical and Numerical Models, 1021

Development of Air Concentration on Chute Spillways, 1023

Experimental Study and 3D Numerical Simulations for a Free-Overflow Spillway, 1022

Forces on Plunge Pool Slabs: Influence of Joints Location and Width, 936

Hydraulics of Plane Plunge Pool Scour, 976

Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221

Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068

Splicing

Tensile Lap Splicing of Bundled CFRP Reinforcing Bars in Concrete, 217

Spread foundations

Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916

Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922

Spreadsheets

Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396

Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217

Real Options by Spreadsheet: Parking Garage Case Example, 1147

Sprinkler irrigation

Method for Measurement of Canopy Interception under Sprinkler Irrigation, 1185

Set Sprinkler Irrigation and Its Cost, 1214

St. Lawrence River

Collapse of the Quebec Bridge, 1907, 1373

Stability

Charge Reversal Effect on Blanket in Full-Scale Flocculant Clarifier, 756

Collapse during Construction of a Precast Girder Bridge, 1375

Green's Function of the Linearized de Saint-Venant Equations, 447

Limitations in the Back-Analysis of Strength from Failures, 828

Static loads

Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574

Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557

Time-Delayed Positive Velocity Feedback Control Design for Active Control of Structures, 503

Stabilization

Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273

Microstructure and Compactive Instabilities of a Stabilized Residue, 1290

Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277

Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263

Stadiums

Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385

Stainless steel

Cold-Formed Stainless Steel Sections Subjected to Web Crippling, 1451

Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488

Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489

Stairs

Design Charts for Helicoidal Stair Slabs with Landing at Midspan, 1470

Standards

Comparative Study of University Courses on Critical-Path Method Scheduling, 358

Determination of Atterberg Limits: Uncertainty and Implications, 816

Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-05 (CD-ROM), 2076

Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407

Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627

Standards Governing Glazing Design in Hurricane Regions, 94

Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357

State government

CommunityViz-Based Prototype Model for Assessing Development Impacts in a Naturalized Floodplain—EmiquonViz, 1795

Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1776

Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States., 1777

State Water Resources Planning in the United States, 2091

Static loads

Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814

Static loads

- Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529
Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32

Static tests

- Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305
Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
Structural Behavior of FRP Composite Bridge Deck Panels, 141

Stationary processes

- Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Statistical models

- Distributions of Wave Steepness and Surf Parameter, 1855
Statistical Modeling to Forecast Odor Levels of Biosolids Applied to Reuse Sites, 652

Statistics

- Application of Weibull Statistics to the Tensile Strength of Rock Aggregates, 850
Assessing the Hydrologic Performance of Best Management Practices, 1101
Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315
Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756
Construction Delivery Systems: A Comparative Analysis of Their Performance within School Districts, 399
Critical Review of Deflection Formulas for FRP-RC Members, 206
Determination of Atterberg Limits: Uncertainty and Implications, 816
Distributions of Wave Steepness and Surf Parameter, 1855
Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159
Evaluating the Long-Term Performance of Geosynthetic Clay Liners Exposed to Freeze-Thaw, 804
Evaluation of the Nash—Sutcliffe Efficiency Index, 1132
First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809
Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425
Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
Improved Image Analysis for Evaluating Concrete Damage, 265
Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844
Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843
Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190
Predicting Speeds in an Urban Right-Turn Lane, 1684

2006 ASCE TRANSACTIONS

- Pressure Drop as a Criterion of a Steam-Turbine Plant's Efficiency, 423
Probabilistic Behavior of Floods of Record in the United States, 1120
Repeated Measurement Data Analysis in Pavement Deterioration Modeling, 1153
Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740
Site-Specific Validation of Random Vibration Theory-Based Seismic Site Response Analysis, 863
Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569
Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748
Statistical Modeling of the Serviceability of Sewage Pumps, 1039
Statistics of Range of a Set of Normally Distributed Numbers, 1662
Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54
Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092
Use of Superpave Gyrotory Compaction Data for Rutting Prediction, 1744
Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161

Steady flow

- Equivalent Roughness Height for Plane Bed under Steady Flow, 1048
General Validity of Conductivity Means in Unsaturated Flow Models, 1125

Steam electric power generation

- Pressure Drop as a Criterion of a Steam-Turbine Plant's Efficiency, 423

Steel

- Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214
Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
Brace Forces in Steel Box Girders with Single Diagonal Lateral Bracing Systems, 1558
Change of Weld Residual Stresses due to Loss of Material, 1630
Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169
Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222
Composite Construction in Steel and Concrete V, 2057
Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458
Ductile Web Fracture Initiation in Steel Shear Links, 1556
Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202
Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065
Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164

SUBJECT INDEX

- Flexural Behavior of Hybrid FRP-Concrete-Steel Double-Skin Tubular Members, 233
- Interaction of Top Lateral and Internal Bracing Systems in Tub Girders, 1598
- Microvoid Damage Model with Material Dilation for Ductile Fracture, 546
- Minor Axis Moment-Thrust Response Behavior in Steel I-Shaped Members, 1544
- Overture to Omaha, 2024
- Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460
- Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461
- Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515
- Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516
- Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542
- Soil Stabilization using Basic Oxygen Steel Slag Fines, 1285
- Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363
- Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199
- Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281
- Steel beams**
- Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195
- Distortional Buckling Tests on Cold-Formed Steel Beams, 1490
- Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171
- Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Stability Requirements for Beams in Seismic Steel Moment Frames, 1570
- Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142
- Steel columns**
- Compression Behavior of Nonslender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1500
- Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediate Stiffeners, 1491
- Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477
- Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599
- Steel construction**
- Distortional Buckling of Cold-Formed Steel Members, 1503

Steel plates

- Steel decks**
- Consistent Approach to Calculating Stresses for Fatigue Design of Welded Rib-to-Web Connections in Steel Orthotropic Bridge Decks, 154
- Steel fibers**
- High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347
- Steel frames**
- Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520
- Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447
- Effects of Ground Motion Parameters and Cyclic Degradation Behavior on Collapse Response of Steel Moment-Resisting Frames, 1592
- Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444
- Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470
- Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471
- Optimum Arm Geometry for Ductile Modular Connectors, 1510
- Reliability of Steel Frames Designed with Advanced Analysis, 1465
- Seismic Design Optimization of Steel Building Frameworks, 1466
- Seismic Evaluation of Steel Moment Frame Buildings Designed using Different *R*-Values, 1583
- Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591
- Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1554
- Testing Protocol for Short Links in Eccentrically Braced Frames, 1555
- Steel piles**
- Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119
- Investigation of Longitudinal Forces in a Concrete Railroad Trestle, 165
- Steel pipes**
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
- Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539
- Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974
- Steel plates**
- Concentrically Loaded Circular Steel Plates Bearing on Plain Concrete, 1614
- Experimental Evaluation of Compressive Behavior of Orthotropic Steel Plates for the New San Francisco — Oakland Bay Bridge, 118
- Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171

Steel structures

- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Behavior of High Strength Structural Steel at Elevated Temperatures, 1631
- Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Design of Steel Transmission Pole Structures (ASCE/SEI 48-05), 2058
- Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512
- Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557
- Experimental Stiffness and Seismic Response of Pallet-Type Steel Storage Rack Connectors, 1987
- Improving Full-Scale Transmission Tower Design through Topology and Shape Optimization, 1518
- Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639
- Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308
- Seismic Evaluation of Steel Moment Frame Buildings Designed using Different R -Values, 1583
- Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223
- Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627
- Stiffening**
- Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8
- Hysteretic Model of Stiffened Shear Panel Dampers, 1486
- Mechanics of Web Panel Postbuckling Behavior in Shear, 1595
- Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207
- Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363
- Stiffness**
- Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814
- Brace Forces in Steel Box Girders with Single Diagonal Lateral Bracing Systems, 1558
- Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333
- Characterization of Unistrut Connection Method with Pultruded Fiber-Reinforced Polymer Channels, 1342
- Closed-Form Stiffness Matrix for the Four-Node Quadrilateral Element with a Fully Populated Material Stiffness, 581
- Collapse during Construction of a Precast Girder Bridge, 1375
- Complex Edge Stiffeners for Thin-Walled Members, 1459
- Construction of Customized Mass-Stiffness Pairs using Templates, 80
- Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203

- Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
- Experimental Behavior of Stiffened and Unstiffened End-Plate Connections under Cyclic Loading, 1572
- Experimental Stiffness and Seismic Response of Pallet-Type Steel Storage Rack Connectors, 1987
- Experiments of Cold-Formed Steel Connections and Portal Frames, 1498
- Factors Affecting Portable Falling Weight Deflectometer Measurements, 853
- Finite - Element Modeling of the Nonlinear Behavior of Bolted-T-Stub Connections, 1530
- Form-Finding of Nonregular Tensegrity Systems, 1580
- "Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360
- Grace under Pressure, 2013
- Influence Zone for End Bearing of Piles in Sand, 891
- Investigation of Foundation Vibrations Resting on a Layered Soil System, 789
- Lateral Stiffness of Shear Walls with Openings, 1621
- Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236
- Monotonic and Cyclic Behavior of Two Calcareous Soils of Different Origins, 925
- Nonlinear EI Equation for Slender Composite Columns Bending about the Minor Axis, 1596
- Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477
- Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174
- Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Short-Term Structural Instability under Random Dynamic Loads, 568
- Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808
- Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162
- Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16
- Strength and Behavior of Cold-Formed Steel Z-Sections Subjected to Major Axis Bending, 1600
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- Stress Path Testing of Realistically Cured Lime and Lime/Cement Stabilized Clay, 1288
- Sudden Failure of a Heavily Loaded Container Pavement, 912
- Stochastic models**
- Coupled Surge-Heave Motions of a Moored System. II: Stochastic Analysis and Simulations, 502
- Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412
- Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176
- Optimal Layout of Sewer Systems: A Deterministic versus a Stochastic Model, 1018
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Simulated Annealing - Genetic Algorithm for Transit Network Optimization, 251

SUBJECT INDEX

Strain

- Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Stochastic Point Rainfall Modeling for Correlated Rain Cell Intensity and Duration, 1073
- A Stochastic Transformation Field Theory for Heterogeneous Materials, 564
- Stochastic processes**
- Comparison of Two Nonparametric Alternatives for Stochastic Generation of Monthly Rainfall, 1094
- Contingency Planning in Project Selection using Multi-objective Optimization and Chance Constraints, 1148
- Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Evaluation of Karhunen-Loève, Spectral, and Sampling Representations for Stochastic Processes, 453
- Flexibility-Based Damage Localization from Stochastic Realization Results, 499
- Galerkin Solution for Linear Stochastic Algebraic Equations, 570
- Generalized Bouc - Wen Model for Highly Asymmetric Hysteresis, 495
- Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Markov-Based Optimization Model for Building Facilities Management, 407
- Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439
- Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361
- Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980
- Stochastic Streamflow Simulation using SAMS-2003, 1177
- Stones**
- Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953
- Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628
- Storage**
- Experimental Stiffness and Seismic Response of Pallet-Type Steel Storage Rack Connectors, 1987
- Storage tanks**
- Vapor Leak Detection for an Underground Storage Tank System, 703
- Storm sewers**
- Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
- Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366
- Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750
- Storms**
- Enhanced Runoff Curve Number Model Incorporating Storm Duration and a Nonlinear I_t - S Relation, 1136
- Stormwater management**
- Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734
- Assessing the Hydrologic Performance of Best Management Practices, 1101
- Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff, 761
- Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775
- Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131
- Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
- Design of Street Curb Opening Inlets using a Decay-Based Clogging Factor, 1057
- Dioxin in Storm-Water Runoff in Houston, Texas, 770
- Downstream Economic Benefits of Conservation Development, 1804
- Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695
- Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711
- Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232
- Grass Swale-Perforated Pipe Systems for Stormwater Management, 1170
- Great Works on Urban Water Resources (1962-2001), 2071
- Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation, 1119
- Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839
- Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592
- Oil and Grease Measurement in Highway Runoff — Sampling Time and Event Mean Concentrations, 629
- Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810
- Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801
- Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089
- Start at the Source, 2001
- Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717
- Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210
- Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123
- Strain**
- Damage Identification Based on Dead Load Redistribution: Methodology, 1562

- Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179
- Effects of Strain and Damage on Strain-Sensing Ability of Carbon Fiber Cement, 1299
- Interpretation of Impact Penetration Measurements in Soft Clays, 848
- Principal Deviatoric Strain Increment Ratios for Sand having Inherent Transverse Isotropy, 47
- Robustness Analysis of Two-Dimensional Networks, 1664
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489
- System for In-Service Strain Monitoring of Ordinary Bridges, 170
- Strain distribution**
- Analysis of Factors Affecting Strain Distribution in Geosynthetics, 777
- Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785
- Strain energy**
- Cross-Modal STrain Energy Method for Estimating Damage Severity, 477
- Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533
- Strain measurement**
- Assessment of Bridge Remaining Fatigue Life through Field Strain Measurement, 177
- Estimating Fatigue Life of Bridge Components Using Measured Strains, 176
- Strain rate**
- Upsetting Tests of Fresh Cementitious Composites for Extrusion, 450
- Strain softening**
- Critical Inclination of Compression Struts in Concrete Beams, 1508
- Damage Theory Based on Composite Mechanics, 561
- Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57
- Numerical Analysis of T-Bar Penetration in Soft Clay, 53
- Stratification**
- Response of a Tropical Reservoir to Bubbler Destratification, 682
- Stream channels**
- Scour around Bankline and Setback Abutments in Compound Channels, 933
- Stream gaging**
- Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121
- RiverSpill*: A National Application for Drinking Water Protection, 970
- Streamflow**
- Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130
- Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122
- Comparison of Two Nonparametric Alternatives for Stochastic Generation of Monthly Rainfall, 1094
- Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821

- Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111
- Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222
- Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209
- Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097
- Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076
- Modified K-NN Model for Stochastic Streamflow Simulation, 1110
- Stochastic Streamflow Simulation using *SAMS-2003*, 1177
- Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811
- Streams**
- Application of UVP within Porous Beds, 1028
- Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100
- Concentration—Duration—Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765
- Disturbance Caused by Bed Sills on the Slopes of Steep Streams, 1052
- Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209
- Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979
- Streets**
- CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799
- Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67
- Design of Street Curb Opening Inlets using a Decay-Based Clogging Factor, 1057
- Strength**
- Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518
- Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
- Particle Shape Effects on Packing Density, Stiffness, and Strength: Natural and Crushed Sands, 832
- Quantifying the Effect of Rock Strength Criteria on Minimum Drilling Mud Weight Prediction using Polyaxial Rock Strength Test Data, 38
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475
- Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476
- Strength of Lightweight Glass Aggregate Concrete, 1343

SUBJECT INDEX

Stress

- Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18
- Bimodal Alongwind Fatigue of Structures, 1528
- Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8
- Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725
- Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Effect of Gas on Pore Pressures in Wet Landfills, 829
- Long-Term Behavior of Precast Segmental Cantilever Bridges, 137
- Normalizing the CPT for Overburden Stress, 812
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489
- Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991
- Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Suction Stress Characteristic Curve for Unsaturated Soil, 791
- Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627

Stress analysis

- Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487
- Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749
- Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52
- Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62
- Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900

Stress concentration

- Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575
- Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574
- Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52
- Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973
- Size Effect on Strength of Quasi — Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558

Stress distribution

- Concentrically Loaded Circular Steel Plates Bearing on Plain Concrete, 1614
- Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110
- Load Transfer in Rammed Aggregate Piers, 51
- Pinned Connection Strength and Behavior, 1456

Stress intensity factor

- Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids, 435

Structural analysis

- Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60

Stress measurement

- Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155
- Performance of a Cantilever Retaining Wall, 875

Stress strain relations

- Analytical Stress — Strain Relations for Concrete Confined by Steel Stirrups and/or FRP Jackets, 1577
- Anisotropic Nonlinear Elastic Model for Particulate Materials, 874
- Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296
- Behavior and Modeling of Fiber Reinforced Polymer-Confined Concrete, 9
- Compression Field Modeling of Confined Concrete: Constitutive Models, 1318
- Effect of Contact Force Models on Granular Flow Dynamics, 566
- Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62
- Nonlinear Stress-Strain Relationship of Soil Reinforced with Flexible Geofibers, 851
- Performance of Structures before and during Failure, 1972
- Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Stress — Strain Behavior of Large-Scale Circular Columns Confined with FRP Composites, 1450
- Unloading and Reloading Stress — Strain Model for Confined Concrete, 1449

Stress waves

- Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155
- Nondestructive and Laboratory Evaluation of Damage Gradients in Concrete Structure Exposed to Cryogenic Temperatures, 1368

Structural analysis

- Analyses of a Two-Story Unreinforced Masonry Building, 1505
- Application of Web Services for Structural Engineering Systems, 260
- Design Charts for Helicoidal Stair Slabs with Landing at Midspan, 1470
- Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487
- Form-Finding of Nonregular Tensegrity Systems, 1580
- Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602
- Long-Term Behavior of Precast Segmental Cantilever Bridges, 137
- Natural Frequencies of a Structure with Bounded Uncertainty, 578
- Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390
- Seismic Fragility Analysis of Structural Systems, 473
- Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973
- Structural Analysis of the Wooden Structure of the Historical Building of Ali Qapu, 1616

Structural analysis

Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622

Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623

Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393

Structural behavior

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

"Giant Superelasticity Effect" in NiTi Superelastic Materials and Its Applications, 1360

Seismic Response and Damage Detection Analyses of an Instrumented Steel Moment-Framed Building, 1591

Structural Behavior of FRP Composite Bridge Deck Panels, 141

Structural control

Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566

Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567

Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500

Coupled Building Control Considering the Effects of Building/Connector Configuration, 1524

Experimental Verification of Smart Cable Damping, 462

Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504

Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532

Sampled Data Feedback-Feedforward Control of Structures with Time Delays, 1549

Time-Dependent Positive Velocity Feedback Control Design for Active Control of Structures, 503

Structural design

17th Analysis and Computation Specialty Conference, 2044

Buckling of GFRP Columns: An Empirical Approach to Design, 242

Building Integration Solutions, 2053

Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433

Computer Representation to Support Conceptual Structural Design within a Building Architectural Context, 253

Design Charts for Helicoidal Stair Slabs with Landing at Midspan, 1470

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from Used Tires, 1339

Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489

Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625

Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475

Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1975

Experimental Investigation of Aluminum Alloy Thin-Walled Tubular Members in Combined Compression and Bending, 1632

2006 ASCE TRANSACTIONS

Exposure Categories and Transitions for Design Wind Loads, 1612

Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633

A Healing Place, 1998

Improving Full-Scale Transmission Tower Design through Topology and Shape Optimization, 1518

Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618

Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491

Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-05 (CD-ROM), 2076

Nonconstrained Flagpole Design Formula, 1454

Nonlinear *El* Equation for Slender Composite Columns Bending about the Minor Axis, 1596

Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477

Optimal Design with Probabilistic Objective and Constraints, 445

Performance-Based Structural Fire Safety, 1369

Reliability of Steel Frames Designed with Advanced Analysis, 1465

Seismic Evaluation of Steel Moment Frame Buildings Designed using Different *R*-Values, 1583

Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581

Shape Selection for Lattice Structures, 1608

Shear Resistance of FRP RC Beams: Experimental Study, 235

Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089

Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569

Structural Design of a Lunar Habitat, 71

Tests and Design of Aluminum Alloy Compression Members, 1546

Through it All, 2004

Virtual Experiments for Welded Structural Steel Connections, 1983

Structural dynamics

Condensed Model Identification and Recovery for Structural Damage Assessment, 1638

Construction of Customized Mass-Stiffness Pairs using Templates, 80

Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79

Effects of Connection Fractures on Global Behavior of Steel Moment Frames Subjected to Earthquakes, 1447

Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135

Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403

On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554

Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504

SUBJECT INDEX

- Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174
- Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity, 442
- Structural elements**
- Tensile Lap Splicing of Bundled CFRP Reinforcing Bars in Concrete, 217
- Structural engineering**
- Engineering with the Spreadsheet — Structural Engineering Templates Using Excel, 2063
- Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397
- Preventing Disproportionate Collapse, 1396
- Residential Building Loads: Review and Roadmap for the Future, 2083
- Security Barrier Design, 1981
- Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243
- Structures Congress 2006: Structural Engineering and Public Safety, 2092
- Structural failures**
- Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761
- Global System Considerations for Progressive Collapse with Extensions to Other Natural and Man-Made Hazards, 1406
- Normalized Test for Prediction of Debonding Failure in Concrete Elements Strengthened with CFRP, 240
- Performance of Structures before and during Failure, 1972
- Progressive Collapse — An Implosion Contractor's Stock in Trace, 1405
- Structural members**
- Theoretical Analysis of Transfer Lengths in Pretensioned Prestressed Concrete Members, 545
- Structural models**
- Nonlinear Aeroelasticity: Continuum Theory, Flutter/Divergence Speed, and Plate Wing Model, 76
- Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Structural reliability**
- Applying Method of Moments to Model Reliability of Pavements Infrastructure, 1706
- Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Electrical Transmission Line and Substation Structures: Structural Reliability in a Changing World, 2062
- Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561
- Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582
- Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361
- Probability-Based Bridge Network Performance Evaluation, 167
- Reliability of Steel Frames Designed with Advanced Analysis, 1465
- Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626
- Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513

Structure reinforcement

- Structural Damage Detection via Modal Data with Genetic Algorithms, 1586
- Structural response**
- Determining Equivalent Linear Parameters for Use in a Capacity Spectrum Method of Analysis, 1445
- Efficient Computation of Response Sensitivities for Inelastic Structures, 1464
- Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
- Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70
- Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Structural safety**
- Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932
- Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618
- Lagrangian Approach to Structural Collapse Simulation, 516
- Preventing Disproportionate Collapse, 1396
- Structural stability**
- Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463
- Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
- Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469
- Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491
- Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911
- Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Short-Term Structural Instability under Random Dynamic Loads, 568
- Stability Requirements for Beams in Seismic Steel Moment Frames, 1570
- Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- Structural steels**
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152
- Structural strength**
- Performance in Fire of Small-Scale CFRP Strengthened Concrete Beams, 239
- Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308
- Structure reinforcement**
- Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204
- Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248

Struts

Struts

Innovative Central Opening Strut System for Foundation Excavation, 293

Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507

Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531

Transverse Analysis of Strutted Box Girder Bridges, 107

Students

Engineering Experience and Competitions Implement ABET Criteria, 1419

Gaining Retention and Achievement for Students Program: A Faculty Development Program, 1424

Studs

Buckling of Conventionally Sheathed Stud Walls, 1514

Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205

Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502

Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493

Subcontractors

Proposed Subcontractor-Based Employee Motivational Model, 303

Subcritical flow

Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951

Subgrades

Factors Affecting Portable Falling Weight Deflectometer Measurements, 853

Rational Approach for Base Type Selection, 1746

Reclaimed Hydrated Fly Ash as a Geomaterial, 1283

Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291

Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Subirrigation

Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169

Submarine pipelines

Improved Analysis Method for Wave-Induced Pipeline Stability on Sandy Seabed, 1727

Stability of Submarine Pipelines on Liquefied Seabeds, 1878

Submerged flow

Dimensionless Stage - Discharge Relationship in Radial Gates, 1184

Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068

Submerged jets

Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957

Substrates

Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485

Substructures

Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139

2006 ASCE TRANSACTIONS

Subsurface drainage

Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090

Subsurface environment

Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769

Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773

Intelligent Utility Locating Tool for Excavators, 379

Resistivity Survey of the Subsurface Conditions in the Estuary of the Rio de la Plata, 784

Subsurface flow

Efficient Solution of the Coupled One-Dimensional Surface - Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206

Sensitivity Analysis of Soil Hydraulic Properties on Subsurface Water Flow in Furrows, 1211

Watershed Surface and Subsurface Spatial Intraflows Model, 1071

Subsurface investigations

Detection of Illegal Dump Deposit with GPR: Case Study, 1955

Subsystems

Effect of Internal Moment Release on the Eigenfrequencies of Combined Linear Systems, 519

Suburbs

Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787

Subways

Battery-Joralemon Street Tunnel, 1374

Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773

Suction

Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921

Hysteresis of Matrix Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490

Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Suction Stress Characteristic Curve for Unsaturated Soil, 791

Sulfates

Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613

Natural Attenuation Assessment using Mineral Data, 1968

Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298

Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808

Sulfides

Natural Attenuation Assessment using Mineral Data, 1968

SUBJECT INDEX

Sulfur

Sulfur Impregnation on Activated Carbon Fibers through H_2S Oxidation for Vapor Phase Mercury Removal, 615

Supercritical flow

Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024

Superstructures

Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323

Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110

Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117

Supports

Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868

Shotcrete for Underground Support X, 2086

Surcharge

Experimental Study of Surcharged Flow at Combining Sewer Junctions, 1058

Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading, 841

Surf zone

Distributions of Wave Steepness and Surf Parameter, 1855

Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896

Surface irrigation

Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199

Model for the Simulation of Water Flows in Irrigation Districts. II: Application, 1200

Modified Kostakov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230

Surface jets

Entrainment Properties of Plane Surface-Jets in Shallow Current, 967

Surface roughness

Exposure Categories and Transitions for Design Wind Loads, 1612

Statistical Modeling of User Perceptions of Infrastructure Condition: Application to the Case of Highway Roughness, 1677

Surface waters

Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

Hydrologic Modeling Inventory: Cooperative Research Effort, 1175

Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191

One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977

Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102

Surface waves

Fully Nonhydrostatic Modeling of Surface Waves, 479

One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977

Sustainable development

Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46

Surface-active agents

Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595

Surge

Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183

Surveys

Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654

Design and Installation of Deep Benchmarks in Expansive Soil, 1658

Determination of Point Displacements in the Geodetic Network, 1648

Determining Free Flight Performance by Surveying Engineering Techniques, 1653

Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961

Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159

GPS Precise Point Positioning Software for Ground Control Point Establishment in Remote Sensing Applications, 1642

Precise Height Determination using Leap-Frog Trigonometric Leveling, 1657

Statistics of Range of a Set of Normally Distributed Numbers, 1662

Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357

Suspended load

Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993

Suspended sediments

Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053

Lateral Variations in Suspended Sediment Concentration over Dunes, 1066

Rate of Deposition of Fine Sediment from Suspension, 985

Suspended solids

Analytic Solution on Critical Suspended Particle Size and Minimum Collection Efficiency in Deep Bed Filtration, 741

New Process Design Procedure for Dealing with Variable Trickling Filter Effluent Suspended Solids, 684

Respirometric Assessment of Primary Sludge Fermentation Products, 590

Sustainable development

Behavior of Beam-Column Joints made of Sustainable Concrete under Cyclic Loading, 1336

Constructability Practices to Manage Sustainable Building Knowledge, 91

Educating Engineers to Create a Sustainable Future, 631

Examining the Business Impact of Owner Commitment to Sustainability, 326

Lean Processes for Sustainable Project Delivery, 395

Organic Hazardous Substances in Graywater from Swedish Households, 700

Sustainable development

- Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291
- Study of Total Maximum Daily Load and Nonpoint Source Pollution Control Strategies for Reservoir Watershed, 1954
- Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88
- Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793

Sweden

- Handling of Urban Snow with Regard to Snow Quality, 612
- Organic Hazardous Substances in Graywater from Swedish Households, 700

Swelling

- Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1328
- Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953

- Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Symmetry

- Symmetric Catenary of a Uniform Elastic Cable of Neo-Hookean Material, 509

Synthetic materials

- Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824

System reliability

- Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419
- Computing Travel Time Reliability in Transportation Networks with Multistates and Dependent Link Failures, 282
- Consequence Management Optimization for Contaminant Detection and Isolation, 1829
- Disaster Recovery System Model with E-Government Case Study, 1937
- Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Reduction of Physical Threats to Water Distribution Systems, 1822
- Solution for Water Distribution Systems under Pressure-Deficient Conditions, 1818

Systems management

- Best Practices of Bridge System Management—A Synthesis, 1258

Tailings

- Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792

Tailwater

- Clear Water Local Scour by Submerged Three-Dimensional Wall Jets: Effect of Tailwater Depth, 989

- Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068

Taiwan

- Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963

2006 ASCE TRANSACTIONS

- Coordinate Transformation between Two Geodetic Datums of Taiwan by Least-Squares Collocation, 1649

- Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992

- Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922

- Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655

- Multiobjective Strategic Evaluation for Urban Development in Kaohsiung, Taiwan: Case Study, 1791

- Risk Factors to Driver Fatalities in Single-Vehicle Crashes: Comparisons between Non-Motorcycle Drivers and Motorcyclists, 1687

- Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773

Tanks

- Design Analysis for Buckling of Tanks and Silos, 1443
- Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875

Taxation

- Future Environmental Regulation Issues to Promote Energy Efficiency, 427

TCE

- Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949

- Biodegradation of Tetrachloroethene by *Chitin* Fermentation Products in a Continuous Flow Column System, 673

- Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963

- Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605

- Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672

- Remediation of a TCE Plume using a Three-Component Strategy, 1952

- Simultaneous and Sequential Photocatalysis of TCE and PCE, 586

Teaching methods

- Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93

- Gaining Retention and Achievement for Students Program: A Faculty Development Program, 1424

- Soils Magic*: Bringing Civil Engineering to the K-12 Classroom, 1417

Teamwork

- Case for Drug Testing of Construction Workers, 1242

Technology

- Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

- Applications of Advanced Technology in Transportation, 2049

- Innovations in Earthmoving Equipment: New Forms and Their Evolution, 386

- Offshore Technology in Civil Engineering: Hall of Fame Papers from the Early Years, 2077

- Structural Insulated Panels: Impact on the Residential Construction Process, 366

- Systems Analysis of Technical Advancement in Earthmoving Equipment, 385

- The Widening Gulf, 2027

SUBJECT INDEX

Technology assessment

Construction IT Decision Making Using Multiattribute Utility Theory for Use in a Laboratory Information Management System, 414

Telecommunication

Creating a New School of Computer Science and Engineering in Kansas City, 1912

Transportation Choices and Air Pollution Effects of Telework, 1149

Telescopes

Remarkable Rotation, 1994

Temperature

Behavior of High Strength Structural Steel at Elevated Temperatures, 1631

Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751

Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708

Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512

Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295

High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349

Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859

Hydrogen Production by Plasma Electrolysis, 431

Material-Related Aspects of Asphalt Recycling — State-of-the-Art, 1270

New Static Sunshade Design for Energy-Efficient Buildings, 422

Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152

Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Spatial Moment Analysis for One-Dimensional Non-isothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106

Sustainability and Economics of the Advanced High-Temperature Reactor, 432

Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267

Temperature effects

Air/Water Oxygen Transfer in a Biological Aerated Filter, 603

Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611

Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147

Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325

Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707

Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Enhancement of Anaerobic Digestion of Excess Municipal Sludge with Thermal and/or Oxidative Treatment, 670

Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322

Tension

Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862

Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316

Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275

Low-Temperature Soil Heating using Renewable Energy, 659

Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320

Model to Predict Pavement Temperature Profile: Development and Validation, 1679

Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699

Theoretical and Experimental Analysis of GFRP Bridge Deck under Temperature Gradient, 153

Tendons

Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109

Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161

Tennessee

Case Study of a High-Performance Concrete Bridge in Tennessee, 1992

Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Tensile strength

Application of Weibull Statistics to the Tensile Strength of Rock Aggregates, 850

Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114

Development of Mix Design Procedure for Cold In-Place Recycling with Foamed Asphalt, 1274

General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909

Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62

Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597

Residual Tensile Properties of GFRP Reinforcing Bars after Loading in Severe Environments, 226

Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265

Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263

Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363

Tensile stress

Determining the Tensile Stress-Crack Opening Curve of Concrete by Inverse Analysis, 449

Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48

Tension

Accelerating the Construction of a Highway Bridge in Ohio, 1980

Internal Forces for Statically Indeterminate Structures having Different Moduli in Tension and Compression, 508

Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327

Tension

Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307

Tension structures

Nonlinear Analytical Solution for Cable Truss, 446

Topological Mapping for Tension Structures, 1535

Terrorism

Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825

Blast-Resistant Glazing Design, 97

Comparative Analysis of Water Vulnerability Assessment Methodologies, 1146

Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834

Consequence Management Optimization for Contaminant Detection and Isolation, 1829

Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824

Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828

Delay between Sensing and Response in Water Contamination Events, 1145

Global System Considerations for Progressive Collapse with Extensions to Other Natural and Man-Made Hazards, 1406

Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163

Lessons Learned from an Emergency Bridge Replacement Project, 321

Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832

Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162

Operational Response Model for Physically Attacked Water Networks using NSGA-II, 283

Rapid Bridge Replacement under Emergency Situation: Case Study, 130

Reduction of Physical Threats to Water Distribution Systems, 1822

Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247

Security Barrier Design, 1981

Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823

Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401

Terrorism Risks and Blast Damage to Built Infrastructure, 1933

Tests

Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047

Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520

Determination of Required Falling Weight Deflectometer Testing Frequency for Pavement Structural Evaluation at the Network Level, 1671

Determining the Tensile Stress-Crack Opening Curve of Concrete by Inverse Analysis, 449

2006 ASCE TRANSACTIONS

Geomechanics II — Testing, Modeling, and Simulation, 2069

Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274

Soil-Pile Response to Blast-Induced Lateral Spreading, II: Analysis and Assessment of the p - y Method, 794

Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748

Texas

Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682

Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328

Determination of Required Falling Weight Deflectometer Testing Frequency for Pavement Structural Evaluation at the Network Level, 1671

Dioxin in Storm-Water Runoff in Houston, Texas, 770

Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input — Output Model, 1720

Failure Investigation of a Foamed-Asphalt Highway Project, 1140

Instantaneous Unit Hydrograph Evaluation for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas, 1218

Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851

Lessons Learned on Jointed Concrete Pavement Rehabilitation Strategies in Texas, 1690

Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076

Stochastic Optimization of the Highland Lakes System in Texas, 1807

Textiles

Application of Polymers to Textile-Reinforced Concrete, 1338

Theories

Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186

Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253

Lean Construction: From Theory to Implementation, 1256

A Stochastic Transformation Field Theory for Heterogeneous Materials, 564

Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204

Thermal analysis

Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64

Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267

Thermal energy

Double-Pass Photovoltaic-Thermal Solar Air Collector with Compound Parabolic Concentrator and Fins, 433

Hydrogen Production by Plasma Electrolysis, 431

SUBJECT INDEX

Thermal factors

- Analyses of Heated Concrete Spalling due to Restrained Thermal Dilation: Application to the "Chunnel" Fire, 552
- Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101
- Decreasing Measuring Errors of a Thermal Groundwater Flowmeter, 1195
- Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295
- High-Strength Self-Compacting Concrete Exposed to Fire Test, 1349
- Metakaolin as an Extender in South African Cement, 1332
- Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148
- Thermal Compatibility and Durability of Wearing Surfaces on GFRP Bridge Decks, 149

Thermal gradient

- Theoretical and Experimental Analysis of GFRP Bridge Deck under Temperature Gradient, 153

Thermal powerplants

- Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975

Thermal properties

- Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64
- Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244

Thermal stratification

- Circulation in Stratified Lakes due to Flood-Induced Turbidity Currents, 754

Thermal stresses

- Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826
- Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487
- Theoretical and Experimental Analysis of GFRP Bridge Deck under Temperature Gradient, 153

Thermodynamics

- Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562
- Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826
- Identification and Interpretation of Microplane Material Laws, 465
- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599
- Pressure Drop as a Criterion of a Steam-Turbine Plant's Efficiency, 423

Thermoelasticity

- Laplace Boundary Element Model for the Thermoelastic Consolidation of Multilayered Media, 25
- Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437

Thickness

- Accuracy of Ground-Penetrating Radar for Pavement-Layer Thickness Analysis, 1673
- Axisymmetric Nonlinear Stability of a Shallow Conical Shell with a Spherical Cap of Arbitrary Variable Shell Thickness, 555

Three-dimensional models

- Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569

- Vibration of Open Cylindrical Shells with Stepped Thickness Variations, 514

Thin wall sections

- Complex Edge Stiffeners for Thin-Walled Members, 1459
- Design Provisions for Sections Containing Unstiffened Elements with Stress Gradient, 8
- Distortional Buckling of Cold-Formed Steel Members, 1503
- Performance Evaluation of FRP Bridge Deck Component under Torsion, 146
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573

Thin wall structures

- Distortional Buckling Tests on Cold-Formed Steel Beams, 1490

Three-dimensional analysis

- Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids, 435
- Computation of Short-Crested Deepwater Waves, 1870
- GIS-Based Implementation of Three-Dimensional Limit Equilibrium Approach of Slope Stability, 839
- Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470
- Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471
- Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
- Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531
- Three-Dimensional Free Vibration Analysis of Multiphase Piezocomposite Structures, 524
- Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Three-dimensional flow

- Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889
- Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82

Three-dimensional models

- 3D Model Application to Study Residual Flow in the Arabian Gulf, 1891
- 3D Simulation of Combining Flows in 90° Rectangular Closed Conduits, 954
- Customizing Visualization in Three-Dimensional Urban GIS via Web-Based Interaction, 1782
- Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900
- Experimental Study and 3D Numerical Simulations for a Free-Overflow Spillway, 1022

Three-dimensional models

Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262

Model for Three-Dimensional Highway Alignment, 1764

Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024

New Approach to Determine Three-Dimensional Contacts in Blocks System: Penetration Edges Method, 42

Potential of Augmented Reality as an Assistant Viewer for Computer-Aided Drawing, 280

Sediment Transport over Ripples in Oscillatory Flow, 950

Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710

Validation of a Three-Dimensional Computational Fluid Dynamics Model of a Contact Tank, 1005

Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893

Thrust

Active Thrust Due to Backfill Subject to Lines of Surcharge, 805

Minor Axis Moment-Thrust Response Behavior in Steel I-Shaped Members, 1544

Tidal currents

Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858

Tidal effects

EOF Analysis of Complex Response of Venice Mobile Gates, 1872

Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979

Tidal waters

Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663

Tides

Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774

Compilation of a Map of Recent Vertical Crustal Movements in Eastern Canada using Geographic Information System, 1663

EOF Analysis of Complex Response of Venice Mobile Gates, 1872

Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859

Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902

Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893

Ties

Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531

Timber construction

Buckling of Conventionally Sheathed Stud Walls, 1514

Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237

Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479

2006 ASCE TRANSACTIONS

Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440

Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441

Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453

Racking Performance of Structural Insulated Panels, 1617

Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568

Time dependence

Behavior of One-Dimensional Consolidation under Time-Dependent Loading, 480

Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440

Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441

Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510

Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480

Time factors

Accurate Representation of External Force in Time History Analysis, 438

Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317

Creep Buckling of Shallow Parabolic Concrete Arches, 1601

Prototype Time-Space Diary Design and Administration for a Developing Country, 1715

Temporal Variation in Consumer Spatial Behavior in Shopping Streets, 1792

Time series analysis

Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593

Tires

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339

Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869

Stochastic Spatial Excitation Induced by a Distributed Contact on Homogenous Gaussian Random Fields, 505

Toll roads

Turnpike Transformation, 2038

Tolls

Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682

Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683

Topographic surveys

Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640

SUBJECT INDEX

Topography

- Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444
- Divergence Form for Bed Slope Source Term in Shallow Water Equations, 997
- Three-Dimensional Topography of Debris-Flow Fan, 962
- Tipon: Water Engineering Masterpiece of the Inca Empire, 2093

Tornadoes

- Catastrophe-Induced Destruction and Reconstruction, 1924
- Validation of Finite-Element Analyses for Storm Shelters, 89

Torsion

- Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
- Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512
- Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221
- Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820
- New Three-Dimensional Damage Index for RC Buildings with Planar Irregularities, 1585
- Performance Evaluation of FRP Bridge Deck Component under Torsion, 146
- Plastic and Lateral-Torsional Buckling Behavior of Single Cold-Formed Channels Connected Back-to-Back, 1559
- Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513
- Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629
- Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489

Toughness

- Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114
- Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634

Tourism

- Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729

Towers

- Improving Full-Scale Transmission Tower Design through Topology and Shape Optimization, 1518

Toxicity

- Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940
- Health Risk Assessment for a Contaminated Site: A Case Study, 1964
- TCLP Heavy Metal Leaching of Personal Computer Components, 638

Tracers

- Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774
- Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033

- Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599

- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. I: Field Study of Tracer Movement, 1966

- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967

- Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902

- Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696

Tracking

- Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410

Traffic accidents

- Improved Design for Vision-Based Incident Detection in Transportation Systems using Real-Time View Transformations, 1755
- Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692
- Risk Factors to Driver Fatalities in Single-Vehicle Crashes: Comparisons between Non-Motorcycle Drivers and Motorcyclists, 1687
- Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716
- Vehicle Collision with Bridge Piers, 1

Traffic analysis

- Modeling Network Traffic for Planning Applications in a Small Community, 1790
- Probabilistic Neural Networks Application for Vehicle Classification, 1693

Traffic characteristics

- Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758
- Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759

Traffic congestion

- Moving On, 2018
- Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697

Traffic control

- Developing Combined Genetic Algorithm — Hill-Climbing Optimization Method for Area Traffic Control, 1736
- Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732
- Multiobjective Plan Selection Optimization for Traffic Responsive Control, 1702

Traffic delay

- Developing Combined Genetic Algorithm — Hill-Climbing Optimization Method for Area Traffic Control, 1736
- Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752
- Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697

Traffic engineering

Modeling Network Traffic for Planning Applications in a Small Community, 1790

Traffic flow

Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724

Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258

Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159

Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757

Issues and Solutions to Macroscopic Traffic Dispersion Modeling, 1723

Lateral Distribution of Mixed Traffic on Two-Lane Roads, 1728

Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697

Potential Computational Benefits of Geometric, Kinematic, and Behavioral Downsampling of Microscopic Traffic Network Simulation, 277

Procedures for Calibrating TRANSYT Platoon Dispersion Model, 1722

Reversible Lane Systems: Synthesis of Practice, 1766

Short-Term Freeway Traffic Flow Prediction: Bayesian Combined Neural Network Approach, 1675

Traffic management

Algorithm Fusion for Detecting Incidents on Singapore's Central Expressway, 1696

Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714

Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682

Corridor Protection through NEPA, 1420

Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789

Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694

Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712

Entropy Models of Trip Distribution, 1774

Evaluation of Speed-Based Travel Time Estimation Models, 1721

Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752

Lateral Distribution of Mixed Traffic on Two-Lane Roads, 1728

Methodology to Develop Median Barrier Warrant Criteria, 1691

Multiojective Plan Selection Optimization for Traffic Responsive Control, 1702

Overtaking Rule Method for the Cleaning of Matched License-Plate Data, 1730

Prototype Time-Space Diary Design and Administration for a Developing Country, 1715

Reversible Lane Systems: Synthesis of Practice, 1766

Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781

Speed Distribution Curves under Mixed Traffic Conditions, 1713

Upstream Signalized Crossover Intersection: An Unconventional Intersection Scheme, 1763

Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686

Traffic models

Estimation of Uniform Delay of Permitted Left Turns from Exclusive Turn Lanes, 1741

Issues and Solutions to Macroscopic Traffic Dispersion Modeling, 1723

Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Modeling Network Traffic for Planning Applications in a Small Community, 1790

Probabilistic Model for Signalized Intersection Capacity with a Short Right-Turn Lane, 1685

Probabilistic Neural Networks Application for Vehicle Classification, 1693

Procedures for Calibrating TRANSYT Platoon Dispersion Model, 1722

Traffic safety

Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Relationship between Speed, Lateral Placement, and Drivers' Eye Movement at Two-Lane Rural Highways, 1734

Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665

Traffic signals

Actuated Signal Operations of Congested Diamond Interchanges, 1750

Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258

Corridor Protection through NEPA, 1420

Crashworthiness of Motor Vehicle and Traffic Light Pole in Frontal Collisions, 1743

Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges, 1732

Estimation of Uniform Delay of Permitted Left Turns from Exclusive Turn Lanes, 1741

Geometric Models to Calculate Left-Turn Sight Distance for Signalized Intersections on Horizontal Curves, 1738

Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757

Issues and Solutions to Macroscopic Traffic Dispersion Modeling, 1723

Probabilistic Model for Signalized Intersection Capacity with a Short Right-Turn Lane, 1685

Procedures for Calibrating TRANSYT Platoon Dispersion Model, 1722

Upstream Signalized Crossover Intersection: An Unconventional Intersection Scheme, 1763

Traffic signs

3D Calculation of Stopping-Sight Distance from GPS Data, 1739

SUBJECT INDEX

Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758

Traffic speed

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756

Corridor Protection through NEPA, 1420

Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758

Predicting Speeds in an Urban Right-Turn Lane, 1684

Relationship between Speed, Lateral Placement, and Drivers' Eye Movement at Two-Lane Rural Highways, 1734

Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740

Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665

Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753

Speed Distribution Curves under Mixed Traffic Conditions, 1713

Traffic surveillance

Algorithm Fusion for Detecting Incidents on Singapore's Central Expressway, 1696

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784

Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712

Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164

Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752

Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686

Traffic surveys

Borrowing Residential Trip Generation Rates, 1674

Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789

Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752

Traffic volume

Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758

Improved AADT Estimation by Combining Information in Image- and Ground-Based Traffic Data, 1719

Training

Developing Knowledge Landscapes through Project-Based Learning, 1416

Development of New Faculty: Summary of the NSF-CMS WEE Workshop, 1418

Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402

Measurement Design Is an Opportunity to Learn, 1917

Transportation corridors

Turbocharged Organizational Change through High-Octane Management Training, 1916

What Does the Construction Industry Value in its Workers?, 392

Transcritical flow

Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993

Transformations

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Stepwise Parameter Estimations in a Time-Variant Similarity Transformation, 1660

Transformation, Attenuation, Setup, and Undertow of Internal Waves on a Gentle Slope, 1901

Transformation of DDT and its Metabolites by Various Abiotic Methods, 662

Transient flow

Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222

General Validity of CConductivity Means in Unsaturated Flow Models, 1125

Godunov-Type Solutions for Transient Flows in Sewers, 1010

Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987

Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82

Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541

Transient loads

Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Transient response

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Transients

Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805

Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001

Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000

Transport rate

Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676

Transportation

Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286

Transportation corridors

Corridor Protection through NEPA, 1420

Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input - Output Model, 1720

Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773

Transportation engineering

Transportation engineering

- Determining the Content of the First Course in Transportation Engineering, 1423
- System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263

Transportation management

- Applications of Advanced Technology in Transportation, 2049
- CommunityViz-Based Prototype Model for Assessing Development Impacts in a Naturalized Floodplain—EmiquonViz, 1795
- Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1776
- Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States., 1777
- Decision Methodology for Allocating Funds across Transportation Infrastructure Assets, 1137
- Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784
- Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712
- Entropy Models of Trip Distribution, 1774
- Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695
- Influence of School Accessibility on Housing Values, 1785
- Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703
- Multiple Tandem Jets in Cross-Flow, 1027
- Probabilistic Neural Networks Application for Vehicle Classification, 1693
- Prototype Time-Space Diary Design and Administration for a Developing Country, 1715
- Transportation Activity Centers for Urban Transportation Analysis, 1800
- Turbocharged Organizational Change through High-Octane Management Training, 1916
- Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716
- Urban Origins/Destinations from High-Resolution Remote Sensing Images, 1783
- Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676

Transportation models

- Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input—Output Model, 1720
- Transportation Activity Centers for Urban Transportation Analysis, 1800

Transportation networks

- Computing Travel Time Reliability in Transportation Networks with Multistates and Dependent Link Failures, 282
- Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789
- Effectiveness of Learning Transportation Network Growth through Simulation, 1410
- Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159

2006 ASCE TRANSACTIONS

Evaluation of the Trans-Texas Corridor Proposal:

- Application and Enhancements of the Random-Utility-Based Multiregional Input—Output Model, 1720

- Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667

Transportation studies

- Borrowing Residential Trip Generation Rates, 1674

Transportation systems

- Applications of Advanced Technology in Transportation, 2049
- Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input—Output Model, 1720

- Hurricane Katrina: Performance of Transportation Systems, 2074

- Improved Design for Vision-Based Incident Detection in Transportation Systems using Real-Time View Transformations, 1755

- Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793

Transverse loads

- Numerical Simulations of Dynamic Instability of Elastic-Plastic Beams, 461

Travel demand

- Borrowing Residential Trip Generation Rates, 1674
- Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676

Travel patterns

- Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787

- Transportation Activity Centers for Urban Transportation Analysis, 1800

Travel time

- Computing Travel Time Reliability in Transportation Networks with Multistates and Dependent Link Failures, 282

- Evaluation of Speed-Based Travel Time Estimation Models, 1721

- Irrigation Scheduling with Travel Times, 1188

- Overtaking Rule Method for the Cleaning of Matched License-Plate Data, 1730

- Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765

- Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339

Trees

- Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695

- Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815

Trenches

- Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761

SUBJECT INDEX

Tubes

Trenchless technology

Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48

Pipelines 2006—Service to the Owner, 2080

Utilization of Trenchless Construction Methods in Mainland China to Sustain Urban Infrastructure, 1984

Triaxial compression

Compression Field Modeling of Confined Concrete: Constitutive Models, 1318

Input Parameters of Discrete Element Methods, 506

Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864

Triaxial shear

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Triaxial tests

Comparative Study of Different Subbase Materials, 1326

Constitutive Model for Rockfill Materials and Determination of Material Constants, 35

Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57

Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792

Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862

Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582

Limit-State Curve of Base-Course Material and Its Relevance for Resilient Modulus Testing, 795

Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797

Monotonic and Cyclic Behavior of Two Calcareous Soils of Different Origins, 925

Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815

Trickle irrigation

Comparison of Crop Contamination by Microorganisms during Subsurface Drip and Furrow Irrigation, 725

Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224

Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225

Trickling filters

New Process Design Procedure for Dealing with Variable Trickling Filter Effluent Suspended Solids, 684

The Role of Biofloculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655

Trihalomethanes

Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600

MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584

Trip forecasting

Borrowing Residential Trip Generation Rates, 1674

Trip frequencies

Borrowing Residential Trip Generation Rates, 1674

Tropical soils

Design of Compacted Lateritic Soil Liners and Covers, 798

Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280

Trucks

Comparative Study of Fatigue Provisions for the AASHTO Fatigue Guide Specifications and LRFR Manual for Evaluation, 169

Effect of Heavy Multiple Axle Trucks on Flexible Pavement Damage using In-Service Pavement Performance Data, 1747

Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128

Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129

Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135

Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366

Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155

Modeling of Pavement Response using Nonlinear Cross-Anisotropy Approach, 1711

Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665

Truck Models for Improved Fatigue Life Predictions of Steel Bridges, 111

Trusses

Behavior of Complex Hat Shapes used as Truss Chord Members, 1501

Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79

Experimental Study of Offset HSS Connections, 1511

Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479

Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500

Modifying Merchants Bridge, 2022

Multiple Optimum Size/Shape/Topology Designs for Skeletal Structures using a Genetic Algorithm, 1552

Nonlinear Analytical Solution for Cable Truss, 446

Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1499

Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531

Tsunamis

Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931

Lessons from Katrina, 2009

Maximum Fluid Forces in the Tsunami Runup Zone, 1903

Tube joints

Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568

Tubes

Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205

Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204

Tubes

- Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168
- Modeling of Prestressed Concrete-Filled Circular Composite Tubes Subjected to Bending and Axial Loads, 1483
- Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243
- Seismic Performance of Concrete-Filled FRP Tube Columns for Bridge Substructure, 139
- Splicing of Precast Concrete-Filled FRP Tubes, 224

Tunneling

- Bayesian Updating Application into Simulation in the North Edmonton Sanitary Trunk Tunnel Project, 376

Tunnels

- Battery-Joralemon Street Tunnel, 1374
- Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49
- Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- Material Spatial Variability and Slope Stability for Weak Rock Masses, 796
- Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534

Turbines

- Pressure Drop as a Criterion of a Steam-Turbine Plant's Efficiency, 423

Turbulence

- Application of UVP within Porous Beds, 1028
- Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
- Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007
- Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70
- Numerical Calculation of Turbulence Structure in Depth-Varying Unsteady Open-Channel Flows, 999
- Particle Image Velocity Measurements of Undular and Hydraulic Jumps, 1060
- Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224
- Similitude of Large-Scale Turbulence in Experiments on Local Scour at Cylinders, 934
- VOF Model for Simulation of a Free Overfall in Trapezoidal Channels, 1212

Turbulent flow

- Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040
- Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468
- Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996
- Multiple Tandem Jets in Cross-Flow, 1027
- Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82
- Sediment Transport over Ripples in Oscillatory Flow, 950
- Three-Dimensional CFD Predictions and Experimental Comparison of Pressure Drop of Some Common Pipe Fittings in Turbulent Flow, 426
- Turbulence Dissipation in Stirred Jars, 567
- Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017

2006 ASCE TRANSACTIONS

Turkey

- Artificial Neural Network Models of Daily Pan Evaporation, 1077
- Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643
- Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367
- Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393

Two phase flow

- Development of Air Concentration on Chute Spillways, 1023
- Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168
- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889

Two-dimensional analysis

- Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033

Two-dimensional models

- 2D Shallow-Water Model using Unstructured Finite-Volumes Methods, 958
- Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943
- Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- Limitations of Depth-Averaged Modeling for Shallow Wakes, 1004
- Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960
- Strength of Two-Dimensional Nodal Zones in Strut — Tie Models, 1613

Typhoons

- Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963
- Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109

Ultimate strength

- Energy Capacity Criterion for the Design of Columns against Collapse, 493
- Pinned Connection Strength and Behavior, 1456
- Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207

Ultrasonic methods

- Bat Echolocation Interfering with Ultrasonic Sensors, 1069
- Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683
- Simultaneous and Sequential Photosynthesis of TCE and PCE, 586

Ultraviolet radiation

- Comparative Inactivation of *Bacillus Subtilis* Spores and MS-2 Coliphage in a UV Reactor: Implications for Validation, 760
- Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666

SUBJECT INDEX

United Kingdom

- Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667
- Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation, 683
- Polychromatic UV Fluence Measurement using Chemical Actinometry, Bidosimetry, and Mathematical Techniques, 693
- Simultaneous and Sequential Photosynthesis of TCE and PCE, 586
- Uncertainty principles**
 - Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121
 - Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156
 - Determination of Atterberg Limits: Uncertainty and Implications, 816
 - Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072
 - Equivalent Linearization for the Nonstationary Response Analysis of Nonlinear Systems with Random Parameters, 481
 - Evaluation of Drinking Water Treatment Technology: An Entropy-Based Fuzzy Application, 728
 - Fourway: Graphical Tool for Performance-Based Earthquake Engineering, 1564
 - Infrastructure Development and Expansion under Uncertainty: A Risk-Preference-Based Lattice Approach, 350
 - Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176
 - Natural Frequencies of a Structure with Bounded Uncertainty, 578
 - Operating Reservoirs in Changing Conditions, 2078
 - Optimal Design in the Presence of Modeling Uncertainties, 77
 - Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
 - Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
 - Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758
 - Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569
 - Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744
 - Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 762
- Undergraduate study**
 - Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433
 - Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432
- Underground construction**
 - Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410
 - Legal Consequences of Damages to Underground Facilities by Horizontal Directional Drilling, 1437
 - Shotcrete for Underground Support X, 2086
 - Underground Construction and Ground Movement, 2095
- Underground storage**
 - Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737
 - Vapor Leak Detection for an Underground Storage Tank System, 703
- Underground structures**
 - A Good Move, 2037
 - Safe Distance between Large-Diameter Rock Pipe Bursting and Nearby Buildings and Buried Structures, 1699
 - Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46
- Undertow**
 - Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896
 - Transformation, Attenuation, Setup, and Undertow of Internal Waves on a Gentle Slope, 1901
- Underwater pipelines**
 - Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
 - Critical Flotation Density of Pipelines in Soils Liquefied by Waves and Density of Liquefied Soils, 1879
 - Liquefaction around Pipelines under Waves, 1880
- Underwater structures**
 - Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932
 - Membrane Analysis and Minimum Weight Design of Submerged Spherical Domes, 1463
- Uniform flow**
 - Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
 - Improving Fluid Flow in Clarifiers using a Highly Porous Media, 726
 - Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467
 - Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225
- United Arab Emirates**
 - Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859
- United Kingdom**
 - Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792
 - A Healing Place, 1998
 - "Is That Not Horrific?" — or — "You Have Been Warned!" *Burchell v. Bullard* and Implications for English Construction Law, 1428
 - Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Cast Study, 1413
 - Novel Cellular Automata Approach to Optimal Water Distribution Network Design, 250
 - Progress of Statutory Adjudication as a Means of Resolving Disputes in Construction in the United Kingdom, 1426
 - Safety Hazard Identification on Construction Projects, 308

Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427

United States

Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168

Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114

Inventive Maintenance, 2017

Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138

Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808

Paving America From Coast to Coast, 2016

Probabilistic Behavior of Floods of Record in the United States, 1120

Universities

Creating a New School of Computer Science and Engineering in Kansas City, 1912

Unpaved roads

Evaluation of Dust Peliatives for Unpaved Roads in Arid Climates, 1394

Unsaturated flow

Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921

Sediment Transport Model for Seepage Erosion of Stream Bank Sediment, 1133

Unsaturated soils

Advances in Unsaturated Soil, Seepage, and Environmental Geotechnics, 2046

Analysis of Deep Moisture Barriers in Expansive Soils. I: Constitutive Model Formulation, 43

Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105

Contaminant Transport Model for Unsaturated Soil using Fuzzy Approach, 752

Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827

General Validity of Conductivity Means in Unsaturated Flow Models, 1125

Hysteresis of Matric Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490

Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606

Plane Strain and Axially Symmetric Consolidation in Unsaturated Soils, 24

Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840

Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846

Suction Stress Characteristic Curve for Unsaturated Soil, 791

Unsaturated Soil Mechanics in Engineering Practice, 807

Unsaturated Soils 2006, 2096

Unsteady flow

Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963

Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209

Flow Resistance and Momentum Flux in Compound Open Channels, 1059

Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001

Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82

Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000

Time-Line Interpolation Errors in Pipe Networks, 961

Uplift

Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5

Uranium

Citric Acid Enhanced Remediation of Soils Contaminated with Uranium by Soil Flushing and Soil Washing, 609

Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960

Urban areas

Blast-Resistant Glazing Design, 97

BMP Technology in Urban Watersheds: Current and Future Directions, 2052

Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786

CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799

Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131

Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67

Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072

Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784

Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642

Downstream Economic Benefits of Conservation Development, 1804

Great Works on Urban Water Resources (1962-2001), 2071

Handling of Urban Snow with Regard to Snow Quality, 612

Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures, 1163

Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

Managing Rock Blasting Work in Urban Environments, 1978

Market Disequilibrium and Urban Land Shortages: Analysis of Policy and Patterns in Hong Kong, 1780

Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810

Optimal Layout of Sewer Systems: A Deterministic versus a Stochastic Model, 1018

Overtaking Rule Method for the Cleaning of Matched License-Plate Data, 1730

Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075

SUBJECT INDEX

Vegetation

- Predicting Speeds in an Urban Right-Turn Lane, 1684
- Route Selection for a New Transportation System in Hillside Urban Areas: A Case Study in Nagasaki, Japan, 1781
- Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801
- Satellite Monitoring of Urban Spatial Growth in the Amman Area, Jordan, 1796
- Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089
- Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090
- Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123
- Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716
- Utilization of Trenchless Construction Methods in Mainland China to Sustain Urban Infrastructure, 1984
- Urban development**
- Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787
- Completing the Circle, 2023
- Multiojective Strategic Evaluation for Urban Development in Kaohsiung, Taiwan: Case Study, 1791
- Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773
- Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750
- Urban planning**
- Customizing Visualization in Three-Dimensional Urban GIS via Web-Based Interaction, 1782
- Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789
- Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159
- Modeling Network Traffic for Planning Applications in a Small Community, 1790
- Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797
- Temporal Variation in Consumer Spatial Behavior in Shopping Streets, 1792
- Urban Origins/Destinations from High-Resolution Remote Sensing Images, 1783
- Urban transportation**
- Determining the Desired Amount of Parking using Game Theory, 1778
- Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Transportation Activity Centers for Urban Transportation Analysis, 1800
- Urbanization**
- Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643
- Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815
- Utah**
- Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Streaming Solutions, 1997
- Utilities**
- Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419
- Intelligent Utility Locating Tool for Excavators, 379
- Vadose zone**
- Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
- Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606
- Validation**
- Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 759
- Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
- Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602
- Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913
- Model to Predict Pavement Temperature Profile: Development and Validation, 1679
- Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190
- Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359
- Validation of a Three-Dimensional Computational Fluid Dynamics Model of a Contact Tank, 1005
- Validation of Finite-Element Analyses for Storm Shelters, 89
- Viscoelastic Modeling and Field Validation of Flexible Pavements, 452
- Value engineering**
- Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253
- Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298
- Valves**
- Innovative Energy-Dissipating Hood, 1006
- Vector analysis**
- Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955
- Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Vegetation**
- Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196

Vegetation

- Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948
- Fuzzy Geographic Information Systems for Phytoremediation Plant Selection, 596
- Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
- Storm Water Detention Ponds: Modeling Heavy Metal Removal by Plant Species and Sediments, 717

Vehicle impacts

- Security Barrier Design, 1981

Vehicles

- Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132
- Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714
- Crashworthiness of Motor Vehicle and Traffic Light Pole in Frontal Collisions, 1743
- Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694
- Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391
- Fully Nonhydrostatic Modeling of Surface Waves, 479
- Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579
- Multivariate Simulation and Multimodal Dependence Modeling of Vehicle Axle Weights with Copulas, 1767
- New Methodology: Permit Checking of Vehicular Overloads, 131
- Overtaking Rule Method for the Cleaning of Matched License-Plate Data, 1730
- Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665
- Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117
- Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753
- Stochastic Spatial Excitation Induced by a Distributed Contact on Homogenous Gaussian Random Fields, 505
- Technology Evaluation of Hydrogen Light-Duty Vehicles, 663
- Vehicle Collision with Bridge Piers, 1
- Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity, 442
- Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144

Velocity

- Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971
- Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897
- Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500
- Decreasing Measuring Errors of a Thermal Groundwater Flowmeter, 1195
- Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128
- Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129

2006 ASCE TRANSACTIONS

- Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061
- Electromagnetic Wave Surface Velocimetry, 946
- Entrainment Properties of Plane Surface-Jets in Shallow Current, 967
- Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220
- Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
- Fuzzy Analysis of Slope-Area Discharge Estimates, 1171
- Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860
- Growth and Decay of Estuary Ice Cover, 184
- Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
- Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878
- Influence of Pore-Water Velocity on Transport Behavior of Cadmium: Equilibrium versus Nonequilibrium, 1958
- Laboratory Measurements of Bed Load Sediment Transport Dynamics, 1875
- Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467
- Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967
- New Method for Estimation of Discharge, 1035
- Normal Transmission of S-Wave across Parallel Fractures with Coulomb Slip Behavior, 498
- Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
- Particle Image Velocity Measurements of Uniaxial and Hydraulic Jumps, 1060
- Rate of Deposition of Fine Sediment from Suspension, 985
- Recent Progress in the Modeling of Corrosion of Structural Steel Immersed in Seawaters, 1152
- Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864
- Seismic Response of a Composite Landfill Cover, 819
- Time-Delayed Positive Velocity Feedback Control Design for Active Control of Structures, 503
- Turbulent Boundary Layer Flows above a Porous Surface Subject to Flow Injection, 553
- Velocity profile**
- Historic Discharge Measurements in Three Rhine Branches, 945
- Multilayer Averaged and Moment Equations for One-Dimensional Open-Channel Flows, 1013
- Ventilation**
- Dynamics of Air Flow in Sewer Conduit Headspace, 1009
- Mechanics and Test Study of Two-Dimensional Flexible Membranes, 92
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Verification**
- Experimental Verification of Smart Cable Damping, 462

SUBJECT INDEX

Viscoplasticity

- Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646
- Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643
- Vertical loads**
- Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Undrained Bearing Capacity of Square and Rectangular Footings, 27
- Vibration**
- Analysis and Solution to Human-Induced Lateral Vibrations on a Historic Footbridge, 104
- Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
- Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463
- Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971
- Construction of Customized Mass-Stiffness Pairs using Templates, 80
- Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500
- Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520
- Effect of Internal Moment Release on the Eigenfrequencies of Combined Linear Systems, 519
- Experimental Verification of Smart Cable Damping, 462
- Flexibility-Based Damage Localization from Stochastic Realization Results, 499
- Free Transverse and Lateral Vibration of Beams with Torsional Coupling, 59
- Full-Scale Measurements to Investigate Rain-Induced Cable-Stay Vibration and its Mitigation, 133
- Fundamental Frequency Testing of Reinforced Concrete Beams, 1384
- General Approach for Training Back-Propagation Neural Networks in Vibration Control of Multidegree-of-Freedom Structures, 269
- Ground Motion Induced by Train Passage, 455
- History and Aesthetics of the Bronx-Whitestone Bridge, 127
- Hydraulic Damping of Saturated Poroelastic Soils During Steady-State Vibration, 523
- In-Service Evaluation of Cable-Stayed Bridges, Overview of Available Methods, and Findings, 175
- Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66
- Investigation of Foundation Vibrations Resting on a Layered Soil System, 789
- Mechanical Grading of Round Timber Beams, 1261
- Minimizing Construction Vibration Effects, 11
- Mitigation of Soil Movements from Pile Driving, 1977
- Nine-Node Resultant-Stress Shell Element for Free Vibration and Large Deflection of Composite Laminates, 69
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall—Numerical and Experimental Studies, 1389
- Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63
- On the Free Vibrations of Variable-Arc-Length Beams: Analytical and Experimental, 1517
- Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439
- Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174
- Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538
- Reduction of Vibrations due to Foundation Slabs, 825
- Safe Distance between Large-Diameter Rock Pipe Bursting and Nearby Buildings and Buried Structures, 1699
- Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72
- Simplified Model for Vertical Vibrations of Surface Foundations, 838
- Site-Specific Validation of Random Vibration Theory-Based Seismic Site Response Analysis, 863
- Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824
- Three-Dimensional Free Vibration Analysis of Multiphase Piezocomposite Structures, 524
- Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity, 442
- Vibration of Open Cylindrical Shells with Stepped Thickness Variations, 514
- Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385
- Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161
- Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275
- Virginia**
- Anatomy of a Successful Partnering Program on a Megaproject, 1915
- Corridor Protection through NEPA, 1420
- Jackson River Modeling: 50-Year Perspective, 719
- Viruses**
- MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584
- Viscoelasticity**
- Behavior of One-Dimensional Consolidation under Time-Dependent Loading, 480
- Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinyl Ester Binder, 1340
- Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497
- Viscoelastic Modeling and Field Validation of Flexible Pavements, 452
- Viscoplasticity**
- Evaluation of Local Bending in Profile-Wall Polyethylene Pipes, 1762

Viscosity

- Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293
- Effect of Penetration Rate on Penetrometer Resistance in Clay, 887
- Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324
- Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322
- Lightweight Shotcrete Canoe: Use of Viscosity Modifying Admixture and Acetone as Artificial Paste, 1300

Voids

- Design and Performance of Stone Mastic Asphalt, 1768
- Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope, 897

Volatile organic chemicals

- Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751
- Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616
- Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882
- Removal of Toluene Vapor with Dispersed Activated Carbon, 622

Volatilization

- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- PCB Volatilization from Sediments, 594

Volume change

- Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881
- Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815
- Study of Effects of Natural Pozzolan on Properties of Cement Mortars, 1356
- Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292

Volume measurement

- Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121

Vortex shedding

- Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511
- Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468
- Limitations of Depth-Averaged Modeling for Shallow Wakes, 1004
- Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032

Vortices

- Experimental Study of Flow in a Vortex Drop Shaft, 937
- Sediment Transport over Ripples in Oscillatory Flow, 950

Walls

- Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Building, 87

Braced for the Future, 2040

- Buckling of Conventionally Sheathed Stud Walls, 1514
- Cellular Automata Model for Predicting the Failure Pattern of Laterally Loaded Masonry Wall Panels, 276
- Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502
- Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538
- Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478
- Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
- Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306
- Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150
- Mechanics and Test Study of Two-Dimensional Flexible Membranes, 92
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389
- Parallel Walls as an Abutment Scour Countermeasure, 982
- Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539
- Structural Use of Glass, 98

Warping

- Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573

Washing

- EDTA-Enhanced Washing for Remediation of Pb- and/or Zn-Contaminated Soils, 730
- Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733

Washington

- Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Design, Construction, and Installation of a Floating Caisson used as a Bridge Pier, 1869
- Past Perfect, 1996
- Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811

Waste disposal

- Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737
- Detection of Illegal Dump Deposit with GPR: Case Study, 1955
- Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731
- Marine Wastewater Discharges from Multiport Diffusers. III: Stratified Stationary Water, 971
- Marine Wastewater Discharges from Multiport Diffusers. IV: Stratified Flowing Water, 972
- Microstructure and Compactive Instabilities of a Stabilized Residue, 1290
- Novel Hybrid Filter for the Treatment of Septic Tank Effluent, 685

SUBJECT INDEX

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Waste management

Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408

Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from Used Tires, 1339

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. II: Experimental Results and Quality Assurance, 1269

Economic Analysis of an Irrigation System for Liquid Manure Application, 1208

Estimate of Landfill Settlements due to Mechanical and Compositional Processes, 837

Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869

Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654

Microstructure and Compactive Instabilities of a Stabilized Residue, 1290

Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008

Novel Hybrid Filter for the Treatment of Septic Tank Effluent, 685

Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757

Simple Rule-Based Algorithm for Optimizing Volatile Fatty Acids Production in Primary Sludge Fermentation Schemes, 747

Strength of Lightweight Glass Aggregate Concrete, 1343

Treatment of Contaminated Soils and Groundwater using ISCO, 1939

Unit Weight of Municipal Solid Waste, 893

Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097

Waste sites

Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Unit Weight of Municipal Solid Waste, 893

Waste stabilization ponds

Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646

Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633

Waste storage

Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737

Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289

Stabilization of Arsenic-Bearing Sludges using Lime, 1276

Waste treatment

Novel Hybrid Filter for the Treatment of Septic Tank Effluent, 685

Wastewater management

Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601

Respirometric Assessment of Primary Sludge Fermentation Products, 590

Wasteload allocation

Multiojective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814

Wastewater

Dam Break Wave of Thixotropic Fluid, 960

Dynamics of Air Flow in Sewer Conduit Headspace, 1009

Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182

Marine Wastewater Discharges from Multipoint Diffusers. III: Stratified Stationary Water, 971

Marine Wastewater Discharges from Multipoint Diffusers. IV: Stratified Flowing Water, 972

Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 965

Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647

Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699

Stress-Controlled Filtration with Compressible Particles, 858

Wastewater management

Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715

Aerobic Biofiltration Processes — Advances in Wastewater Treatment, 1969

Air/Water Oxygen Transfer in a Biological Aerated Filter, 603

Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585

Biodegradation of Phenol with Wastewater as a Cosubstrate in Upflow Anaerobic Sludge Blanket, 759

Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595

Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669

Contrasting the Benefits of Primary Clarification versus Prefermentation in Activated Sludge Biological Nutrient Removal Systems, 720

Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619

Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772

Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656

Enhancing Bioremediation with Enzymatic Processes: A Review, 1947

Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802

Evaluation of Water Reuse Technologies for the Textile Industry, 618

Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771

- Fenton and Electro-Fenton Methods for Oxidation of H-Acid and Reactive Black 5, 624
- Formation of Aerobic Granules with Domestic Sewage, 677
- Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819
- Integration of Processes to Treat Wastewater and Source-Separated Urine, 620
- Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746
- Modeling Water Movement and Flux from Membrane Pervaporation Systems for Wastewater Microirrigation, 714
- Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732
- Nutrient Removal in a Cold-Region Wastewater Stabilization Pond: Importance of Ammonia Volatilization, 633
- Organic Hazardous Substances in Graywater from Swedish Households, 700
- Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745
- Simulating Activated Sludge System by Simple-to-Advanced Models, 587
- Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630
- Statistical Modeling to Forecast Odor Levels of Biosolids Applied to Reuse Sites, 652
- Treatment of Dilute Wastewaters using a Novel Submerged Anaerobic Membrane Bioreactor, 604
- Treatment of High-Strength Pharmaceutical Wastewater and Removal of Antibiotics in Anaerobic and Aerobic Biological Treatment Processes, 597
- Treatment of Polishing Wastewater from Semiconductor Manufacturer by Dispersed Air Flotation, 588
- Type II Settling Data Analysis, 598
- Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696
- Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Wastewater treatment

- Anaerobic Degradability: Effect of Particulate COD, 637
- Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731
- The Role of Bioflocculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655

Water

- Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775
- Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1328

Water balance

- Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839

Water circulation

- 3D Model Application to Study Residual Flow in the Arabian Gulf, 1891

Water content

- BCD: A Soil Modulus Device for Compaction Control, 788
- Behavior of Undrained Layered Soil Columns during Infiltration, 1105
- Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806
- Design of Compacted Lateritic Soil Liners and Covers, 798
- Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
- Laboratory Evaluation of Smear Zone and Correlation between Permeability and Moisture Content, 867
- Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815
- Sudden Failure of a Heavily Loaded Container Pavement, 912

Water demand

- Can Reservoir Storage Be Uneconomically Large?, 1854
- Ecofriendly Concrete with High Volume of Lagoon Ash, 1310

Water depth

- Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540

Water discharge

- Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121
- Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
- Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965
- Performance of Slit Weir, 1029
- Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979

Water distribution systems

- Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942
- Alternative Decision Making in Water Distribution Network with NSGA-II, 1813
- Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798
- Bayesian Belief Networks to Integrate Monitoring Evidence of Water Distribution System Contamination, 1825
- Condition Assessment of Water Distribution Pipes, 1151
- Condition Rating Model for Underground Infrastructure Sustainable Water Mains, 1376
- Consequence Management Optimization for Contaminant Detection and Isolation, 1829
- Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828
- Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830
- Double-Pass Photovoltaic-Thermal Solar Collector, 434
- Explicit Integration Method for Extended-Period Simulation of Water Distribution Systems, 969

SUBJECT INDEX

Water pipelines

- Identification of Contaminant Sources in Water Distribution Systems using Simulation - Optimization Method: Case Study, 1827
- Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833
- Iron Oxide Enhanced Chlorine Decay and Disinfection By-Product Formation, 767
- Irrigation Scheduling with Travel Times, 1188
- Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162
- Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826
- Multi-Objective Trade-Offs between Cost and Reliability in the Replacement of Water Mains, 1809
- Novel Cellular Automata Approach to Optimal Water Distribution Network Design, 250
- Operational Response Model for Physically Attacked Water Networks using NSGA-II, 283
- Optimal Design of Redundant Water Distribution Networks using a Cluster of Workstations, 1840
- Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155
- Optimization of Water Distribution Networks using Integer Linear Programming, 981
- Reduction of Physical Threats to Water Distribution Systems, 1822
- Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Solution for Water Distribution Systems under Pressure-Deficient Conditions, 1818
- Water flow**
 - Analyses of Drought Flow in Recession Period, 1085
 - Analysis of Deep Moisture Barriers in Expansive Soils. II: Water Flow Formulation and Implementation, 44
 - Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044
 - Economic-Based Optimization of Panama Canal System Operations, 1852
 - Effect of Convergence on Nonlinear Flow in Porous Media, 973
 - Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007
 - Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199
 - Modified Kostikov Infiltration Function: Accounting for Initial and Boundary Conditions, 1230
 - Riprap Failure at Circular Bridge Piers, 966
 - Transition from Ripples to Dunes, 1063
 - Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968
- Water hammer**
 - Range of Validity of the Transient Damping Leakage Detection Method, 1025
 - Time-Line Interpolation Errors in Pipe Networks, 961
- Water jets**
 - Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168

Water levels

- Application of Support Vector Machine in Lake Water Level Prediction, 1091
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
- Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
- Ice Stresses in Reservoirs: Effect of Water Level Fluctuations, 183
- Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036

Water management

- Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715
- Delay between Sensing and Response in Water Contamination Events, 1145
- Detection of Illegal Dump Deposit with GPR: Case Study, 1955
- Developing Multiple Indicators and Triggers for Drought Plans, 1817
- Economically Driven Simulation of Regional Water Systems: Friant-Kern, California, 1849
- Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843
- Elevation-Dependent Management of the Edwards Aquifer: Linked Mathematical and Dynamic Programming Approach, 1836
- Examining the Confluence of Environmental and Water Concerns, 2065
- Managing Irrigation for Better River Ecosystems - A Case Study of the Middle Rio Grande, 1229
- Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076
- Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199
- Model for the Simulation of Water Flows in Irrigation Districts. II: Application, 1200
- Operating Reservoirs in Changing Conditions, 2078
- Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Set Sprinkler Irrigation and Its Cost, 1214
- Sharing Water in Times of Scarcity: Guidelines and Procedures in the Development of Effective Agreements to Share Water Across Political Boundaries, 2085
- State Water Resources Planning in the United States, 2091
- Tipon: Water Engineering Masterpiece of the Inca Empire, 2093
- Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling - Mekong River Basin, 1850
- Water pipelines**
 - Adjusting Nodal Demands in SCADA Constrained Real-Time Water Distribution Network Models, 942
 - Condition Assessment of Water Distribution Pipes, 1151
 - Deflection Protection, 2032
 - Detection of Partial Blockage in Single Pipelines, 952
 - Hydraulic Analysis and Direct Design of Multiple Outlets Pipelines Laid on Flat and Sloping Lands, 1226
 - Optimization of Water Distribution Networks using Integer Linear Programming, 981

Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143

Water policy

Achieving Water Use Efficiency in Irrigation Districts, 1846

Developing Multiple Indicators and Triggers for Drought Plans, 1817

Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851

Water pollution

Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940

Chromium Redox Chemistry in Drinking Water Systems, 694

Contaminant Transport Model for Unsaturated Soil using Fuzzy Approach, 752

Delay between Sensing and Response in Water Contamination Events, 1145

Dioxin in Storm-Water Runoff in Houston, Texas, 770

Disinfection By-Product Formation during Long-Term Water Storage in Alaska, 188

Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961

Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830

Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821

Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940

Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963

Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079

Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833

Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826

Modeling the Sorption of Fluoride onto Alumina, 608

Multiobjective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814

New Life for Onondaga Lake, 2014

Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810

PCB Volatilization from Sediments, 594

Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643

Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621

Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687

RiverSpill: A National Application for Drinking Water Protection, 970

Treatment of Acid Rock Drainage in a Meromictic Mine Pit Lake, 640

Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750

Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815

Water pressure

Parametric Study of One - Dimensional Solute Transport in Deformable Porous Media, 870

Water quality

Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734

Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Consequence Management Optimization for Contaminant Detection and Isolation, 1829

Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824

Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828

Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642

Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182

Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir, 1047

Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821

Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232

Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766

Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079

Identification of Contaminant Sources in Water Distribution Systems using Simulation - Optimization Method: Case Study, 1827

Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191

Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129

Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation, 1119

Integrated Hydrodynamic and Water Quality Modeling System to Support Nutrient Total Maximum Daily Load Development for Wissahickon Creek, Pennsylvania, 644

Jackson River Modeling: 50-Year Perspective, 719

Model for Estimating Acute Health Impacts from Consumption of Contaminated Drinking Water, 1831

Multiple Tandem Jets in Cross-Flow, 1027

Response of a Tropical Reservoir to Bubbler Destratification, 682

Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801

Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820

Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard

Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard

Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090

Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625

SUBJECT INDEX

- Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710
Uncertainty Analysis for Coupled Watershed and Water Quality Modeling Systems, 1838
Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744
Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750

Water resources

- Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932
Cold Regions Engineering 2006 — Current Practices in Cold Regions Engineering, 2056
Considering Location, Compliance, and Storage in Decisions on Brackish Water Resource Development, 1853
Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848
Great Works on Urban Water Resources (1962-2001), 2071
Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837
Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819
Management and Construction of the Three Gorges Project, 349
Modeling of Lake Ice Characteristics in North America using Climate, Geography, and Lake Bathymetry, 187
Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201
Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202
Semidistributed Form of the Tank Model Coupled with Artificial Neural Networks, 1112
State Water Resources Planning in the United States, 2091
Watershed and River Systems Management Program: Overview of Capabilities, 1174

Water reuse

- EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674
Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619
Evaluation of Water Reuse Technologies for the Textile Industry, 618
Modeling Water Movement and Flux from Membrane Pervaporation Systems for Wastewater Microirrigation, 714
Water Reuse/Recycling and Reclamation in Semiarid Zones: The Israeli Case of Salination and "Hard" Surfactants Pollution of Aquifers¹, 675

Water rights

- Evaluation of Programs for Regulating Withdrawal of Surface Water under the Riparian Legal System, 1841

Water sampling

- Concentration — Duration — Frequency Curves for pH in a Stream in the Great Smoky Mountains, 765

Water treatment

Water shortage

- Can Reservoir Storage Be Uneconomically Large?, 1854
Nonparametric Approach for Bivariate Drought Characterization using Palmer Drought Index, 1084
Sharing Water in Times of Scarcity: Guidelines and Procedures in the Development of Effective Agreements to Share Water Across Political Boundaries, 2085

Water storage

- Considering Location, Compliance, and Storage in Decisions on Brackish Water Resource Development, 1853
Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087

Water supply

- Considering Location, Compliance, and Storage in Decisions on Brackish Water Resource Development, 1853
Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845
Disinfection By-Product Formation during Long-Term Water Storage in Alaska, 188
Double-Pass Photovoltaic-Thermal Solar Collector, 434
Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir, 1047
Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011
Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162
Productivity and Equity of Different Irrigation Schedules under Limited Water Supply, 1203

Water table

- Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227
Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
Seepage from a Rectangular Ditch to the Groundwater Table, 1192
Seepage to a Drainage Ditch and Optimization of Its Shape, 1234

Water tanks

- Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1975
In-Service Durability Performance of Water Tanks, 1377

Water temperature

- Cross-Shore Internal Waves in Zampa Coastal Region of Okinawa Island, 1858

Water treatment

- Air/Water Oxygen Transfer in a Biological Aerated Filter, 603
Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949
Analytic Solution on Critical Suspended Particle Size and Minimum Collection Efficiency in Deep Bed Filtration, 741

Arsenic Removal from Water by Moving Bed Active Filtration, 583

Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613

Chromium Redox Chemistry in Drinking Water Systems, 694

Comparative Inactivation of *Bacillus Subtilis* Spores and MS-2 Coliphage in a UV Reactor: Implications for Validation, 760

Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697

Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698

Development of a University Laboratory Chemical Inventory and Exchange Program, 1945

Dissolution of Wollastonite in a Packed Bed Contactor, 634

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Effects of Surface-Bound Fe^{2+} on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658

Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772

Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

Factors Influencing Arsenite Removal by Zero-Valent Iron, 749

Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771

Field Study to Investigate WIDE Technology for TCE Extraction, 880

Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666

Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681

Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600

MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584

Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672

New Life for Onondaga Lake, 2014

Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691

Polychromatic UV Fluence Measurement using Chemical Actinometry, Biodosimetry, and Mathematical Techniques, 693

Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653

Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745

Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647

Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610

Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621

Simultaneous and Sequential Photosynthesis of TCE and PCE, 586

Simultaneous Removal of Cd and Cr(VI) using Fe-Loaded Zeolite, 632

Treatment of Dilute Wastewaters using a Novel Submerged Anaerobic Membrane Bioreactor, 604

Type II Settling Data Analysis, 598

Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744

Wastewater Treatment with Biomass Attached to Porous Geotextile Baffles, 614

Water treatment plants

Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664

Quenching Thornion's Thirst, 2043

Water use

Achieving Water Use Efficiency in Irrigation Districts, 1846

Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845

Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819

Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215

Water waves

Control of Scour at Vertical Circular Piles under Waves and Current, 959

Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457

Scattering of Linear Water Waves by a Fixed and Infinitely Long Rectangular Structure Parallel to a Vertical Wall in Oblique Seas, 1865

Solving Wave Dispersion Equation for Dissipative Media using Homotopy Perturbation Technique, 1857

Viscous Effect on the Roll Motion of a Rectangular Structure, 454

Waterfront structures

Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860

Watershed management

BMP Technology in Urban Watersheds: Current and Future Directions, 2052

Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642

Effects of Flood Control Structures on Flood Response for Hurricane Floyd in the Brandywine Creek Watershed, Pennsylvania, 1115

Evaluation of Programs for Regulating Withdrawal of Surface Water under the Riparian Legal System, 1841

Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113

Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128

Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960

Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643

SUBJECT INDEX

Wavelength

- Study of Total Maximum Daily Load and Nonpoint Source Pollution Control Strategies for Reservoir Watershed, 1954
- Uncertainty Analysis for Coupled Watershed and Water Quality Modeling Systems, 1838
- Watershed and River Systems Management Program: Overview of Capabilities, 1174
- Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099
- Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815
- Watersheds**
- Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960
- Watershed Surface and Subsurface Spatial Intraflows Model, 1071
- Waterways**
- Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196
- Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150
- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889
- Wave crest**
- Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068
- Wave diffraction**
- Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900
- Scattering of Linear Water Waves by a Fixed and Infinitely Long Rectangular Structure Parallel to a Vertical Wall in Oblique Seas, 1865
- Wave dispersion**
- Fully Nonhydrostatic Modeling of Surface Waves, 479
- Solving Wave Dispersion Equation for Dissipative Media using Homotopy Perturbation Technique, 1857
- Wave energy**
- Cross-Shore Internal Waves in Zanpa Coastal Region of Okinawa Island, 1858
- Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421
- Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864
- Wave equations**
- Green's Function of the Linearized de Saint-Venant Equations, 447
- Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
- Wave forces**
- Hydrodynamic Characteristics of Pile-Supported Vertical Wall Breakwaters, 1863
- Improved Analysis Method for Wave-Induced Pipeline Stability on Sandy Seabed, 1727
- Maximum Fluid Forces in the Tsunami Runup Zone, 1903
- Scattering of Linear Water Waves by a Fixed and Infinitely Long Rectangular Structure Parallel to a Vertical Wall in Oblique Seas, 1865
- Wave Forcing of Small Floating Bodies, 1874
- Wave measurement**
- Application of Artificial Neural Network Model in Estimation of Wave Spectra, 1894
- Distributions of Wave Steepness and Surf Parameter, 1855
- Particle Image Velocity Measurements of Undular and Hydraulic Jumps, 1060
- Wave overtopping**
- Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045
- Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856
- Wave propagation**
- Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
- Chebyshev Finite-Spectral Method for 1D Boussinesq-Type Equations, 1876
- Classifying River Waves by the Saint Venant Equations Decoupled in the Laplacian Frequency Domain, 998
- Damping in Shear Beam Structures and Estimation of Drift Response, 522
- Fully Nonhydrostatic Modeling of Surface Waves, 479
- Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488
- Nondestructive Dynamic Evaluation of a Concrete Reaction Wall — Numerical and Experimental Studies, 1389
- Normal Transmission of S-Wave across Parallel Fractures with Coulomb Slip Behavior, 498
- Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183
- Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46
- Wave reflection**
- Hydrodynamic Characteristics of Pile-Supported Vertical Wall Breakwaters, 1863
- Wave runup**
- Maximum Fluid Forces in the Tsunami Runup Zone, 1903
- Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889
- Well-Balanced Finite-Volume Model for Long-Wave Runup, 1866
- Wave spectra**
- Application of Artificial Neural Network Model in Estimation of Wave Spectra, 1894
- Prediction of Long Forcing Waves for Harbor Agitation Studie, 1871
- Wave velocity**
- Control of Scour at Vertical Circular Piles under Waves and Current, 959
- Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924
- Wavelength**
- Transition from Ripples to Dunes, 1063

Waves

Waves

Antiplane (SH) Waves Diffraction by a Semicyclic Cylindrical Hill Revisited: An Improved Analytic Wave Series Solution, 550

Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890

Critical Flotation Density of Pipelines in Soils Liquefied by Waves and Density of Liquefied Soils, 1879

Dam-Break Wave-Front Celerity, 938

Development and Verification of an Analytical Solution for Forecasting Nonlinear Kinematic Flood Waves, 1107

Flood Plain Filling by a Monoclinic Flood Wave, 984

Green's Function of the Linearized de Saint-Venant Equations, 447

Laboratory Study of Liquefaction due to Wave-Seabed Interaction, 856

Liquefaction around Pipelines under Waves, 1880

Liquefaction Phenomena underneath Marine Gravity Structures Subjected to Wave Loads, 1885

Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881

Plane Impulse Waves in Reservoirs, 1888

Stability of Submarine Pipelines on Liquefied Seabeds, 1878

Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540

Weather

Determining Free Flight Performance by Surveying Engineering Techniques, 1653

Weathering

Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344

Wells

Behavior of Corrugated Web I-Girders under In-Plane Loads, 517

Fatigue Life of Girders with Trapezoidal Corrugated Webs, 1543

Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633

Mechanics of Web Panel Postbuckling Behavior in Shear, 1595

Shear Behavior of Corrugated Web Bridge Girders, 1457

Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507

Wedges

Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783

Weighing devices

Automatic Speed Calibration Methodology for Traffic Monitoring Sites, 1666

Entropy Application to Improve Construction Finance Decisions, 397

Weight

Multivariate Simulation and Multimodal Dependence Modeling of Vehicle Axle Weights with Copulas, 1767

Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622

2006 ASCE TRANSACTIONS

Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623

Unit Weight of Municipal Solid Waste, 893

Weirs

Broad-Crested Weirs with Rectangular Compound Cross Sections, 1193

Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221

Nonlinear PLS Method for Side Weir Flows, 1219

Performance of Slit Weir, 1029

Welds

Change of Weld Residual Stresses due to Loss of Material, 1630

Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557

Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628

Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597

Tests and Design of Aluminum Alloy Compression Members, 1546

Virtual Experiments for Welded Structural Steel Connections, 1983

Wells

Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data, 1135

Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222

Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859

Optimal Pumping from Skimming Wells, 1118

Simplified Kernel Method for Flow to Large Diameter Wells, 1173

Wetlands

Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090

Case Study: Design and Operation of Sustainable Urban Infiltration Ponds Treating Storm Runoff, 1775

Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling — Mekong River Basin, 1850

White noise

Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439

Width

Effective Slab Width in Prestressed Twin-Girder Composite Decks, 1573

Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670

Wildlife

Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology, 661

Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257

Wind

Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444

SUBJECT INDEX

- Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859
- Wind direction**
A Review of Wind-Resource-Assessment Technology, 420
- Wind energy**
Challenges in Predicting Power Output from Offshore Wind Farms, 430
A Review of Wind-Resource-Assessment Technology, 420
- Wind forces**
Curtain Wall Designs for Wind and Blast: Three Case Studies, 99
Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468
Modeling Response of Flexible High-Aspect-Ratio Wings to Wind Turbulence, 70
Nonconstrained Flagpole Design Formula, 1454
Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588
- Wind gusts**
Safety Analysis of Moving Road Vehicles on a Long Bridge under Crosswind, 478
- Wind loads**
Analysis of Long Span Bridge Response to Winds: Building Nexus between Flutter and Buffeting, 1637
Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61
Database-Assisted Design of Low-Rise Buildings: Aerodynamic Considerations for a Practical Interpolation Scheme, 1529
Exposure Categories and Transitions for Design Wind Loads, 1612
HAZUS-MH Hurricane Model Methodology. I: Hurricane Hazard, Terrain, and Wind Load Modeling, 1930
Hurricane Mitigation of the Florida House Learning Center, 1382
Implementation of a Feasible Control Design Process Incorporating Robustness Criteria for Wind-Excited High-Rise Buildings, 1448
Increased Snow Loads and Wind Actions on Existing Buildings: Reliability of the Norwegian Building Stock, 1618
Peak Wind Load Comparison: Theoretical Estimates and ASCE 7, 1551
A Review of Wind-Resource-Assessment Technology, 420
Revisiting Multimode Coupled Bridge Flutter: Some New Insights, 551
- Wind pressure**
Design of Window Glass for Lateral Pressures, 95
Exposure Categories and Transitions for Design Wind Loads, 1612
A Review of Wind-Resource-Assessment Technology, 420
- Wind speed**
Catastrophe-Induced Destruction and Reconstruction, 1924
A Review of Wind-Resource-Assessment Technology, 420

Wood structures

- Wind tunnel test**
Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67
Full-Scale Measurements to Investigate Rain-Induced Cable-Stay Vibration and its Mitigation, 133
- Wind tunnels**
Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588
- Wind waves**
Distributions of Wave Steepness and Surf Parameter, 1855
- Window glass**
Design of Architectural Glazing to Resist Earthquakes, 96
Design of Window Glass for Lateral Pressures, 95
- Wire products**
Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576
- Wisconsin**
Counterpoint, 2003
- Women**
Changing Our World: True Stories of Women Engineers, 2054
Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250
- Wood**
Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518
Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271
Mechanical Grading of Round Timber Beams, 1261
Potential of Wood Waste Ash as an Additive in Concrete, 1330
Reliability of Steel Doweled Wood Connections Designed to ASCE 16-95, 1482
- Wood beams**
Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441
- Wood preservatives**
Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595
- Wood structures**
Damage and Damage Prediction for Wood Shearwalls Subjected to Simulated Earthquake Loads, 1381
Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440
Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441
Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453
Racking Performance of Structural Insulated Panels, 1617

Wood structures

Racking Performance of Tall Unblocked Shear Walls, 1452

Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513

Structural Analysis of the Wooden Structure of the Historical Building of Ali Qapu, 1616

Wood Members Strengthened with Mechanically Fastened FRP Strips, 228

Workplace diversity

Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250

Summary Report: Leading the Way as Full Diversity Partners — A Senior Executive Workshop on Critical Skills for Courageous Leaders, 1905

Workspace

Critical Space Analysis, 335

Fundamental Principles for Avoiding Congested Work Areas — A Case Study, 1989

Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262

Lighting Requirements for Nighttime Highway Construction, 331

Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697

Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339

Wyoming

Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911

Yield

Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483

Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078

Yield stress

Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806

Experimental Study of Macro- and Microbehavior of Natural Diatomite, 833

Young's modulus

Nondestructive and Laboratory Evaluation of Damage Gradients in Concrete Structure Exposed to Cryogenic Temperatures, 1368

Zeolite

Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792

Zinc

Advanced Oxidation for Treatment of Aqueous Extracts from EDTA Extraction of Pb and Zn Contaminated Soil, 740

Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641

Author Index

- Abadir, Jane M.
see Khedr, Safwan A., 1262
- Abas, Hassan H.
see Sause, Richard, 1543
- Abaz, Khaled A., P.E.
Iterative Linear Approach for Nonlinear Nonhomogeneous Stochastic Pavement Management Models, 1689
- Abbas, Hassan H.
Behavior of Corrugated Web I-Girders under In-Plane Loads, 517
see Driver, Robert G., 1457
- Abbas, Montasir, P.E.
Multiobjective Plan Selection Optimization for Traffic Responsive Control, 1702
- Abbas, S. M.
see Varadarajan, A., 35
- Abbasi, Fariborz
see Rocha, David, 1211
- Abdel-Maksoud, Mohamed Gamal
see Marino, Gennaro G., P.E., 1278
- Abdelrazaq, Ahmad
see Kijewski-Correa, Tracy, 1588
- Abdel-Rohman, M.
see Almutairi, Naif B., 500
- Abdullah, Yasir M.
see Anderson, Michael D., 1784
- Abdul-Rahman, H.
Delay Mitigation in the Malaysian Construction Industry, 300
- Aberle, J.
Data Interpretation for In Situ Measurements of Cohesive Sediment Erosion, 990
- Abichou, Tarek
Characterization of Methane Flux and Oxidation at a Solid Waste Landfill, 607
Design Considerations for Lysimeters Used to Evaluate Alternative Earthen Final Covers, 919
- Abichou, Tarek, P.E.
see Albright, William H., 906
- Abida, H.
Grass Swale-Perforated Pipe Systems for Stormwater Management, 1170
- Abolmaali, Ali
see Jung, Jiwon, 164
- AbouRizk, Simaan
see Agbulos, Albert, 317
see Chung, Tae Hwan, 376
- AbouRizk, Simaan M.
see Sharma, Vishal, 409
see Song, Lingguang, 281
- Abousleiman, Younane
see Ekbote, Shailesh, 510
- Aboutaha, Riyad
see Wattanadechachan, Prapun, 149
- Abou-Zeid, Mohamed Nagib
see Khedr, Safwan A., 1262
- Abraham, Dulcy M.
see Baik, Hyeon-Shik, 1802
see Garcia, Camilo, 339
see Jeong, Hyung Seok, 283
see Llenín, José A., 1388
- Abruzzo, John
Study of Mitigation Strategies for Progressive Collapse of a Reinforced Concrete Commercial Building, 1404
- Abudayyeh, Osama, P.E.
Research Publication Trends and Topics in *Compoupting in Civil Engineering*, 246
- Abuel-Naga, H. M.
Experimental Evaluation of Engineering Behavior of Soft Bangkok Clay under Elevated Temperature, 862
- Accord, N. B.
Use of Fiber-Reinforced Polymer Composite Elements to Enhance Structural Steel Member Ductility, 223
- Achari, G.
see Xu, P., 1941
- Acharya, C.
Operational Optimization and Mass Balances in a Two-Stage MBR Treating High Strength Pet Food Wastewater, 691
- Acharya, Nirmal Kumar
Design Errors: Inefficiency or Carelessness of Designer?, 1383
- Acosta, Hector A.
see Edil, Tuncer B., 1291
- Adam, Chris
see Newton, Tim, 792
- Adam, Michael
Evaluating Ozone as a Remedial Treatment for Removing RDX from Unsaturated Soils, 763
- Adams, Barry J.
see Behera, Pradeep K., 1801
see Chen, Jieyun, 734
see Chen, Jieyun, 1112
- Adams, Dave K.
Performance of Structures before and during Failure, 1972
- Adams, Ellen
see Hearn, George, 1608
- Adams, Tiffany
see Filz, George M., 4

- Adeli, Holjat
see Ghosh-Dastidar, Samanwoy, 1697
- Adler, D. H.
see Teskey, W. F., 1653
- Agar, Emine
see Goktepe, A. Burak, 287
- Agarwal, Pradeep Kumar
 Simple Model for Structural Evaluation of Asphalt Concrete Pavements at the Network Level, 1141
- Agbulos, Albert
 Application of Lean Concepts and Simulation Analysis to Improve Efficiency of Drainage Operations Maintenance Crews, 317
- Aggour, M. Sherif
 Degradation of Sands due to Combined Sinusoidal Loading, 930
- Aglietti, G. S.
see Schwingshackl, C. W., 74
- Agnew, Elizabeth
see Marjanishvili, Shalva, P.E., 1402
- Ahlfeld, David P.
see Kennedy, Matthew G., 710
see Ostendorf, David W., 761
- Ahmad, Iftekhhar
see Zhu, Zhenyu, 139
see Zhu, Zhenyu, 224
- Ahmad, M. S. S.
see Sinnakaudan, S. K., 983
- Ahmad, Sohrrabuddin
see Wadud, Zia, 1470
- Ahn, Chang Hoon
 Microbial Adaptability to Organic Loading Changes in an Enhanced Biological Phosphorus Removal Process, 701
- Ahn, Il-Sang
 Dynamic Ratcheting in Elastoplastic Single-Degree-of-Freedom Systems, 475
- Aibinu, Ajibade Ayodeji
 Construction Delays and Their Causative Factors in Nigeria, 354
- Aicher, Simon
 Fracture Toughness of Wood Fiber Gypsum Panels from Size Effect Law, 507
- Aidoo, John
 Full-Scale Experimental Investigation of Repair of Reinforced Concrete Interstate Bridge using CFRP Materials, 138
see Harries, Kent A., 197
- Aiello, M. A.
 Moisture Effects on Elastic and Viscoelastic Properties of CFRP Rebars and Vinylster Binder, 1340
- Aisien, F. A.
 Comparative Absorption of Crude Oil from Fresh and Marine Water using Recycled Rubber, 723
- Ajbar, AbdelHamid
see Alhumaizi, Khalid, 649
- Akbulut, Suat
see Pamukcu, Sibel, 824
- Akinci, Burcu
 Modeling and Analyzing the Impact of Technology on Data Capture and Transfer Processes at Construction Sites: A Case Study, 401
- Akkar, S. D.
see Miranda, E., 1523
- Akoumianakis, George
see Tzamali, Eleftheria, 1755
- Akritidis, E.
see Tastani, S. P., 190
- Aksoy, H.
see Kavvas, M. L., 1099
- Aktan, A. Emin
see Catbas, F. Necati, 1607
- Aktan, Haluk, P.E.
see Attanayake, Upul, 156
- Aktas, M.
 Minor Axis Moment-Thrust Response Behavior in Steel I-Shaped Members, 1544
- Al Habbai, A.
see El-Mowafy, A., 1640
- Al Mahmoud, Marwan
see Lancelot, Laurent, 582
- Al Marzooqi, Y.
see El-Mowafy, A., 1640
- Alagusundaramoorthy, P.
 Structural Behavior of FRP Composite Bridge Deck Panels, 141
- Alam, Mahbub
 Bioreduction of Hexavalent Chromium in Flow-Through Quartz Sand Columns, 623
- Alampalli, Sreenivas
 Estimating Fatigue Life of Bridge Components Using Measured Strains, 176
see Alnahhal, Wael I., 148
see Wattanadechachan, Prapun, 149
- Alarcón, A.
see Ramos, G., 240
- Alarcón, Luis F.
see Costa, Dayana B., 1255
see Rischmoller, Leonardo, 1243
- Albano, Leonard D., P.E.
 Classroom Assessment and Redesign of an Undergraduate Steel Design Course: A Case Study, 1433
see Johann, Matthew A., 1369
- Al-Barqawi, Hassan
 Condition Rating Model for Underground Infrastructure Sustainable Water Mains, 1376
- Albrecht, Pedro
see Lenwari, Akhrwat, 195
- Albright, William H.
 Field Performance of a Compacted Clay Landfill Final Cover at a Humid Site, 906

AUTHOR INDEX

Alvarado

- Albro, Carl S.
see Lyons, Terrence, 639
- Alcubilla, Roberto Garcia
Derived Willingness-to-Pay for Household Water Use with Price and Probabilistic Supply, 1845
- Aldea, C.
see Prota, A., 210
- Al-Deek, Haitham M., P.E.
Computing Travel Time Reliability in Transportation Networks with Multistates and Dependent Link Failures, 282
- Aldemir, Unal
see Alhan, Cenik, 504
- Aldunate, Roberto
Robust Mobile Ad Hoc Space for Collaboration to Support Disaster Relief Efforts Involving Critical Physical Infrastructure, 247
- Alecsandru, Ciprian
see Ishak, Sherif, 277
- Alexander, M. G.
see Heiyantuduwa, R., 1359
- Al-Gadhib, Ali H.
see Shazali, Mohammed A., 1298
- Al-Ghassani, Ahmed M.
Prototype System for Knowledge Problem Definition, 340
- Alhan, Cenik
Optimal Control: Basis for Performance Comparison of Passive and Semiactive Isolation Systems, 504
- Alhumaizi, Khalid
Optimization of an Unstructured First-Order Kinetics Model of Cyclically Operated Bioreactors, 649
- Al-Hussein, Mohamed
see Agbulos, Albert, 317
see Sharma, Vishal, 409
- Ali, M. S.
see Yu, Daeyoung, 1027
- Ali-Ahmad, Mohamad
Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets, 530
- Alkass, S., P.E.
see Li, J., 406
- Alkass, Sabah T.
see Sadeghpour, Farnaz, 302
- Allan, Andrew
see Soltani, Ali, 1787
- Alleman, J. E.
see Sears, K., 724
- Allen-Munley, Cheryl, P.E.
Urban Bicycle Route Safety Rating Model Application in Jersey City, New Jersey, 1716
- Allouche, E. N.
see Hong, H. P., 1155
- Allouche, Erez N.
Holistic Approach for Assessing the Vulnerability of Buried Pipelines to Earthquake Loads, 1923
- Al-Mahaidi, Riyadh
see Hii, Adrian K. Y., 221
see Pham, Huy Binh, 193
- Al-Mayah, A.
Effect of Sleeve Material on Interfacial Contact Behavior of CFRP-Metal Couples, 1358
- Almedeij, Jaber H.
Approach to Separate Sand from Gravel for Bed-Load Transport Calculations in Streams with Bimodal Sediment, 1051
- Alminar, Sandee
see Mota, Carlos, 206
- Almqvist, Helena
Organic Hazardous Substances in Graywater from Swedish Households, 700
- Almutairi, Naif B.
Control of Suspension Bridge Nonlinear Vibrations due to Moving Loads, 500
- Alnahhal, Wael L.
Temporal Thermal Behavior and Damage Simulations of FRP Deck, 148
- Alonso, Carlos
see Li, Hua, 982
- Alonso, Cristina
see Qi, Shuang, 594
- Al-Qadi, Imad L.
see Diefenderfer, Brian K., 1679
see Elseifi, Mostafa A., 452
see Loulizi, Amara, 1725
- Al-Qadi, Imad L., P.E., ed.
Airfield and Highway Pavement: Meeting Today's Challenges with Emerging Technologies, 2047
- Aldamahi, Bashar A.
see Alshibli, Khalid A., 785
- Al-Ruwaili, Fawzia
see Almedeij, Jaber H., 1051
- Alsaleh, Mustafa I.
Influence of Micromaterial Heterogeneity on Strain Localization in Granular Materials, 37
- Alshawabkeh, Akram N., P.E.
Parametric Study of One-Dimensional Solute Transport in Deformable Porous Media, 870
- Alshibli, Khalid, ed.
see Puppala, Anand J., ed., 2087
- Alshibli, Khalid A.
Microscopic Evaluation of Strain Distribution in Granular Materials during Shear, 785
see Alsaleh, Mustafa I., 37
- Altan-Sakarya, A. Burcu
see Aydin, Ismail, 1029
- Altunkaynak, Abdusselam
see Uyumaz, Ali, 1038
- Alvarado, Gisel
see Nazarian, Soheil, 1316

- Aly, Ragi**
Tensile Lap Splicing of Bundled CFRP Reinforcing Bars in Concrete, 217
- Ambrozič, Tomaž**
see Savšek-Safić, Simona, 1648
- Amekudzi, Adjo**
Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1776
Considering the Environment in Transportation Planning: Review of Emerging Paradigms and Practice in the United States, 1777
- Amekudzi, Adjo A.**
see Jeon, Christy Mihyeon, 1793
- Ames, Daniel P.**
Estimating 7Q10 Confidence Limits from Data: A Bootstrap Approach, 1821
- Amin, A. F. M. S.**
Hyperelasticity Model for Finite-Element Analysis of Natural and High Damping Rubbers in Compression and Shear, 440
- Amin, Md N.**
see Barr, P. J., 1365
- Amin, MD. N.**
see Barr, P. J., 124
- Amirkhanian, Serji N.**
see Kim, Kwang W., 1324
- Amrhein, Christopher**
see Yu, Xueyuan, 749
- Amstutz, David E.**
see Samuels, William B., 970
- Amy, Gary L.**
see Drewes, Jörg E., 748
- An, Hyunhee**
Evaluation of Programs for Regulating Withdrawal of Surface Water under the Riparian Legal System, 1841
- Anami, Kengo**
see Sause, Richard, 1543
- Anand, Gunwant Singh**
Dissolution of Wollastonite in a Packed Bed Contactor, 634
- Ancev, Tihomir**
Economic Analysis of an Irrigation System for Liquid Manure Application, 1208
- Ancich, Eric J.**
Dynamic Anomalies in a Modular Bridge Expansion Joint, 157
- Andersen, Knut H.**
see Randolph, Mark F., 53
- Anderson, James C.**
see Kargahi, Mohsen, 1622
see Kargahi, Mohsen, 1623
- Anderson, Lee L., Jr., P.E.**
Anatomy of a Successful Partnering Program on a Megaproject, 1915
- Anderson, M. L.**
see Kavvas, M. L., 1099
- Anderson, Michael D.**
Development of a Methodology to Predict Through-Trip Rates for Small Communities, 1784
- Anderson, Stuart D.**
see Oyetunji, Adetokunbo A., 288
- Anderson-Cook, Christine M.**
see Lucko, Gunnar, 359
- Andreatta, A.**
see Martin-Vide, J. P., 1052
- Andreu, Joaquín**
see Pulido-Velázquez, Manuel, 1848
- Ang, Wah Khim**
Solution for Water Distribution Systems under Pressure-Deficient Conditions, 1818
- Aniskevich, A. N.**
see Aiello, M. A., 1340
- Anohin, Vadim V.**
Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir, 1047
- Anotai, J.**
see Lu, M.-C., 1965
- Antonaci, Paola**
Long Mechanical Interaction between Strengthening Materials and Preexisting Structures, 1334
- Anumandla, Vijay**
see Wu, Hwai-Chung, 147
- Anumba, Chimay J.**
see Al-Ghassani, Ahmed M., 340
- see* Owolabi, Abidemi, 257
- Anwar, Arif A.**
see de Vries, Tonny T., 1188
- Anzani, A.**
see Garavaglia, E., 1361
- Apeland, Kristoffer**
see Meløysund, Vivian, 1618
- Apostolakis, George E.**
see Michaud, David, 1160
- Araín, Faisal Manzoór**
Contractors' Views of the Potential Causes of Inconsistencies between Design and Construction in Saudi Arabia, 1372
- Aral, Mustafa M.**
see Guan, Jiabao, 1827
- Arbocz, Johann**
see Goldfeld, Yiska, 575
- Archilla, Adrian Ricardo**
Repeated Measurement Data Analysis in Pavement Deterioration Modeling, 1153
Use of Superpave Gyrotory Compaction Data for Rutting Prediction, 1744
- Arciszewski, Tomasz**
Civil Engineering Crisis, 1907
see Skolicki, Zbigniew, 1822

AUTHOR INDEX

Aydilek

- Arditi, David
see Dog, Sevgi Zeynep, 396
see Lee, Dong-Eun, 292
see Lee, Dong-Eun, 315
see Poku, Stephen E., 285
- Aref, Amjad J.
see Alnahhal, Wael I., 148
- Areias, Pedro M. A.
 Analysis of Finite Strain Anisotropic Elastoplastic Fracture in Thin Plates and Shells, 81
- Argyros, Antonis
see Tzamali, Eleftheria, 1755
- Ariaratnam, Samuel T.
 Legal Consequences of Damages to Underground Facilities by Horizontal Directional Drilling, 1437
 Utilization of Trenchless Construction Methods in Mainland China to Sustain Urban Infrastructure, 1984
- Arif, Mohammed
see Mullens, Michael A., P.E., 366
- Arnold, Robert G.
see Miller, Jennifer H., 732
- Arnold, William A., P.E.
see Shimotori, Tsutomu, 690
- Arockiasamy, Madasamy
 Full-Scale Field Tests on Flexible Pipes under Live Load Application, 1366
- Arora, Jasbir S.
see Wang, Qian, 1624
- Arroyo, Marcos
 Microstructure and Compactive Instabilities of a Stabilized Residue, 1290
- Arroyo-Caraballo, José R.
 Glancing-Blow Impact Forces by a Barge Train on a Lock Approach Wall, 1150
- Arviza-Valverde, Jaime
see Palau-Salvador, Guillermo, 1224
- ASCE
 Automated People Mover Standards — Part 1 (ASCE 21-05), 2051
 Design of Steel Transmission Pole Structures (ASCE/SEI 48-05), 2058
 Guidelines for Cloud Seeding to Augment Precipitation, 2073
 Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-05 (CD-ROM), 2076
 Transactions of the American Society of Civil Engineers 2005, 2094
- ASCE Committee on Diversity and Women in Civil Engineering
 Summary Report: Leading the Way as Full Diversity Partners — A Senior Executive Workshop on Critical Skills for Courageous Leaders, 1905
- Aschheim, M.
see Tjhin, T., 1485
- Ashford, Scott A.
 Soil-Pile Response to Blast-Induced Lateral Spreading. I: Field Test, 793
- see* Bozorgzadeh, Azadeh, 158
see Juirnarongrit, Teerawut, 794
- Ashok, B.
see Kumar, D. Nagesh, 1178
- Asp, Paul, P.E.
 Counterpoint, 2003
- Asquith, William H.
see Cleveland, Theodore G., 1218
- Assaad, J. J.
 Effect of Mixture Consistency on Formwork Pressure Exerted by Highly Flowable Concrete, 1353
- Assaf, Sadi A.
see Arain, Faisal Manzoor, 1372
- Assoc. Prof.
see Sukumaran, Praveen, 1733
- Atahan, Ali O.
 Finite-Element Crash Test Simulation of New York Portable Concrete Barrier with I-Shaped Connector, 1481
- Ataie-Ashtiani, B.
 Experimental Investigation of Clear-Water Local Scour at Pile Groups, 1042
- Atalah, Alan, P.E.
 Improving Enrollment in the Master of Construction Management Program at Bowling Green State University, 1434
 Pipelines 2006 — Service to the Owner, 2080
 Safe Distance between Large-Diameter Rock Pipe Bursting and Nearby Buildings and Buried Structures, 1699
- Atimtay, Ergin, P.E.
 Learning Seismic Design from the Earthquake Itself, 1986
- Atiquzzaman, Md.
 Alternative Decision Making in Water Distribution Network with NSGA-II, 1813
- Attal, Mikaël
 New Facility to Study River Abrasion Processes, 994
- Attanayake, Upul
 Penetrating Sealants for Concrete Bridge Decks — Selection Procedure, 156
- Au, Ching
 Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture, 192
- Aubeny, C. P.
 Interpretation of Impact Penetration Measurements in Soft Clays, 848
- Aubertin, M.
see Mbonimpa, M., 881
- Audic, Jean-Marc
see Rivero, Jesús A. Cacho, 670
- Aulenta, Federico
see Louarn, Essyllt, 705
- Austeng, Kjell
see Lædre, Ola, 356
- Aydilek, Ahmet H.
 Constriction Size of Geotextile Filters, 2

- Field Evaluation of a Leachate Collection System Constructed with Scrap Tires, 869
see Kutay, M. Emin, 777
- Aydin, Ismail**
Performance of Slit Weir, 1029
- Ayoub, Ashraf**
Nonlinear Analysis of Reinforced Concrete Beam — Columns with Bond-Slip, 559
- Ayuga, F.**
see Vidal, P., 542
- Azam, Mir Hammadul**
3D Model Application to Study Residual Flow in the Arabian Gulf, 1891
Three-Dimensional Modeling of the Ruwais Coastal Area of United Arab Emirates, 1902
see Elshorbagy, Walid, 1859
- Azevedo, Álvaro F. M.**
see Sena Cruz, José M., 218
- Azevedo, Roberto F.**
see Melo, André L. O., 1652
- Aziz, Ahmed M. Abdel**
Generalized Economic Modeling for Infrastructure and Capital Investment Projects, 1139
- Azkune, M.**
see Puente, I., 242
- Azzam, Diya**
Fatigue Behavior of Welded Aluminum Light Pole Support Details, 1628
Residual Stress Measurement of Welded Aluminum Light Pole Supports, 1597
- Babbbar, Meghna**
Groundwater Remediation Design using Multiscale Genetic Algorithms, 1837
- Babcock, Roger, Jr.**
Use of Boron as a Tracer for Recycled Water in Brackish Aquifers, 696
- Babiker, T.**
see El-Mowafy, A., 1640
- Babu, B. Maheswara**
see Mishra, P. K., 1196
- Babu, G. L. Sivakumar**
Reliability Analysis of Deflection of Buried Flexible Pipes, 1754
- Babu, P. Suresh**
see Jain, M. K., 1136
- Baccouch, M.**
Selection of Physical and Geometrical Properties for the Confinement of Vibrations in Nonhomogeneous Beams, 72
- Bachman, Brenda**
see Lyons, Terrence, 639
- Baddour, R. E.**
Entrainment Properties of Plane Surface-Jets in Shallow Current, 967
- Bae, Sang-Wook**
Bearing Strength of Slabs on Grade Supporting a Cold-Formed Steel Wall in Low-Rise Building, 87
- Bae, Sunyoung**
Confirmation of Aqueous Polymer Sorption on Contaminant Barrier Clay using TGA, 1293
- Baek, Kyong Oh**
Evaluation of Dispersion Coefficients in Meandering Channels from Transient Tracer Tests, 1033
- Bagchi, Rajesh**
see Lei, Li, 626
- Bahadur, Rakesh**
see Samuels, William B., 970
- Bahuguna, Saurabh**
Identification and Modeling of Permanent Deformations of Asphalt Concrete, 458
- Bai, K. J.**
see Kim, J. W., 1886
- Bai, Xuequn**
see Tandon, Vivek, 1314
- Bai, Yong**
Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements, 400
- Bai, Yong, P.E.**
Lessons Learned from an Emergency Bridge Replacement Project, 321
Rapid Bridge Replacement under Emergency Situation: Case Study, 130
- Baidya, D. K.**
Investigation of Foundation Vibrations Resting on a Layered Soil System, 789
- Baik, Hyeon-Shik**
Estimating Transition Probabilities in Markov Chain-Based Deterioration Models for Management of Wastewater Systems, 1802
- Baise, Laurie G.**
Liquefaction Hazard Mapping—Statistical and Spatial Characterization of Susceptible Units, 844
see DeGroot, Don J., ed., 2068
- Bakar, M. N. A.**
see Othman, M. Y., 433
see Othman, M. Y., 434
- Baker, Donald L.**
General Validity of Conductivity Means in Unsaturated Flow Models, 1125
- Baker, William F.**
see Kijewski-Correa, Tracy, 1588
- Bakht, Baidar**
see Hay, Shaun, 237
- Bakker, M. C. M.**
Shear-Flexural Buckling of Cantilever Columns under Uniformly Distributed Load, 557
- Balachandar, Ram**
see Faruque, M. A. A., 989
- Balaguru, P.**
see Toutanji, Houssam, 1264
- Balaguru, P. N.**
see Giancaspro, James, 1303

AUTHOR INDEX

Bathurst

- Balakrishnan, A. V.
Modeling Response of Flexible High-Aspect-Ratio
Wings to Wind Turbulence, 70
Nonlinear Aeroelasticity: Continuum Theory, Flutter/
Divergence Speed, and Plate Wing Model, 76
- Balakrishnan, K.
see Sivacoumar, R., 628
- Bali, Khaled M.
see Ventura, Francesca, 1181
- Balint, Gabor
see Szilagyi, Jozsef, 1097
- Ball, James E.
see Maghrebi, Mahmoud F., 1035
- Balling, Richard J.
Multiple Optimum Size/Shape/Topology Designs for
Skeletal Structures using a Genetic Algorithm, 1552
- Baluch, Mohammed H.
see Shazali, Mohammed A., 1298
- Bambach, M. R.
Design Provisions for Sections Containing Unstiffened
Elements with Stress Gradient, 8
- Bandyopadhyay, J. N.
see Singha, Maloy K., 548
- Banerjee, D.
Material Flow-Based Facility Layout Analysis of a
Manufactured Housing Production Plant, 103
- Banerjee, J. R.
Free Transverse and Lateral Vibration of Beams with
Torsional Coupling, 59
- Banik, Gouranga C., P.E.
Emerging Legal Risks for Construction Management
Professionals, 1914
- Bank, Lawrence C.
Double-Layer Prefabricated FRP Grids for Rapid
Bridge Deck Construction: Case Study, 208
- Banthia, N.
see Vindiganavile, V., 1315
- Bapat, J. D.
Ecofriendly Concrete with High Volume of Lagoon
Ash, 1310
- Baradan, Selim
Comparative Injury and Fatality Risk Analysis of
Building Trades, 342
- Baranowski, T. M.
Consequence Management Optimization for Contami-
nant Detection and Isolation, 1829
- Barbieri, Ranier Adonis
Numerical Model for the Analysis of Unbonded Pres-
tressed Members, 1442
- Barecchia, Enrico
see Corte, Gaetano Della, 1337
- Barelli, Michael
History and Aesthetics of the Bronx-Whitestone
Bridge, 127
- Barkan, Christopher P. L.
see Grimes, George Avery, P.E., 1729
- Barkdoll, Brian
see Duan, Jennifer G., 1032
see Melville, Bruce, 956
see Melville, Bruce, 988
- Barkdoll, Brian D.
see Li, Hua, 982
- Barker, J. E.
Physio-Chemical Changes in Clay Caused by Ion
Migration from Lime Piles, 1281
- Barker, M.
see Salim, H. A., 225
- Barnard, J. L.
see Sears, K., 724
- Barnes, Richard
Performance in Fire of Small-Scale CFRP Strength-
ened Concrete Beams, 239
- Baron, Kurtis S.
see Hu, Henry H., 1080
- Barr, P. J.
Long-Term Structural Health Monitoring of the San
Ysidro Bridge, 1365
Shear Live-Load Distribution Factors for I-Girder
Bridges, 124
- Barr, Paul J.
see Hsieh, Kai H., 174
- Barrett, Christopher S.
see Epstein, Howard I., 1983
- Barros, Joaquim A. O.
see Sena Cruz, José M., 218
- Bartelt-Hunt, S. L.
see Burns, S. E., 907
- Bartelt-Hunt, Shannon L.
Optimal Design of a Compacted Soil Liner Containing
SORptive Amendments, 686
- Barthelmie, R. J.
Challenges in Predicting Power Output from Offshore
Wind Farms, 430
- Bartlett, F. Michael
see MacDougall, Colin, 576
- Bartlett, Justin
see Kish, Suzanne M., 739
- Bashor, Rachel
see Kijewski-Correa, Tracy, 1588
- Baskaran, A.
New Design Procedure for Wind Uplift Resistance of
Architectural Metal Roofing Systems, 100
- Bassi, A.
see Acharya, C., 691
- Bast, William D., P.E.
see Lakota, Gregory J., P.E., 2037
- Basu, B.
see Salem, O., 1980
- Bathurst, Richard J.
see Hatami, Kianoosh, 841
see Rowe, R. Kerry, 920

- Batiuk, Richard**
see Wang, Ping, 625
- Battjes, Jurjen A.**
see Hofland, Bas, 1050
- Baugh, John W., Jr.**
see Kumar, Sujay V., 1840
- Baume, J.-P.**
see Litrico, X., 1205
- Bautista, E.**
 Salt River Project Canal Automation Pilot Project: Simulation Tests, 1180
- Baxter, Anthony J.**
see Setareh, Mehdi, 1371
- Baxter, C. D. P.**
see Bradshaw, A. S., 1895
- Baxter, Christopher D. P.**
see Wang, Jian-Hua, 924
- Baykal, Orhan**
see Ceyla, Ayhan, 1657
- Bayo, E.**
see Hernández-Montes, E., 1535
- Bayraktar, Mehmet Emre**
see Sukumaran, Praveen, 1717
- Bayraktar, Mehmet Emre**
see Sukumaran, Praveen, 1733
- Bayram, Atilla**
see Camenen, Benoît, 1048
- Bazán, Enrique**
see Jarenprasert, Sittipong, 1565
- Bažant, Zdeněk P.**
 Reliability, Brittleness, Covert Understrength Factors, and Fringe Formulas in Concrete Design Codes, 1439
 Size Effect on Strength of Quasi — Brittle Structures with Reentrant Corners Symmetrically Loaded in Tension, 558
- Bea, Robert, P.E.**
 Reliability and Human Factors in Geotechnical Engineering, 836
- Beaven, R. P.**
see Cox, S. E., 859
- Beavers, J. E., P.E.**
 Crane-Related Fatalities in the Construction Industry, 377
- Beck, Dwayne L.**
see DeBoer, Darrell W., P.E., 1169
- Beck, James L.**
see Ching, Jianye, 474
- Bédard, Claude**
see Mora, Rodrigo, 253
- Begbie, Howard, P.E.**
see Flavell, Eric L., P.E., 1918
- Begnudelli, Lorenzo**
 Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying, 968
see Valiani, Alessandro, 997
- Beheiry, Salwa M. A.**
 Examining the Business Impact of Owner Commitment to Sustainability, 326
- Behera, Pradeep K.**
 Runoff Quality Analysis of Urban Catchments with Analytical Probabilistic Models, 1801
- Beheshti, A. A.**
see Ataie-Ashtiani, B., 1042
- Behr, Richard A., P.E.**
 Design of Architectural Glazing to Resist Earthquakes, 96
- Beirami, M. K.**
 Hydraulic Jumps in Sloping Channels: Sequent Depth Ratio, 1037
- Belarbi, Abdeldjelil**
see Turcry, Philippe, 1266
- Belarbi, Abdeldjelil, P.E.**
see Bac, Sang-Wook, 87
- Bell, Erin Santini**
see Sanayei, Masoud, 172
- Bell, Glenn R.**
see Zimmer, Alec S., P.E., 2039
- Bell, Lansford C.**
see Skipper, Charles O., 1245
- Bell, Lansford C., P.E.**
see Skipper, Charles O., P.E., 1246
- Bella, David A.**
 Organizational Distortions and Failures: A Method to Expose Them, 1408
- Bellotti, Giorgio**
see Panizzo, Andrea, 1872
- Belovich, Joanne M.**
see Bolton, James, 745
- Beltaos, Spyros**
 Formation of Breakup Ice Jams at Bridges, 1056
- Belytschko, Ted**
see Areias, Pedro M. A., 81
- Benaroya, H.**
see Ruess, F., 71
- Benmokrane, Brahim**
 Designing and Testing of Concrete Bridge Decks Reinforced with Glass FRP Bars, 126
see Aly, Ragi, 217
see Debaiky, Ahmed S., 226
see Zhang, Burong, 29
- Bennethum, Lynn S.**
 Compressibility Moduli for Porous Materials Incorporating Volume Fraction, 562
- Bennett, J. E.**
see Podgornery, R. K., 804

AUTHOR INDEX

Bilec

- Bennett, Richard M.
see Zureick, Abdul-Hamid, 1569
- Benson, Craig H.
see Edil, Tuncer B., 1291
- Benson, Craig H., P.E.
see Albright, William H., 906
- Bentler, Joseph G.
Performance of a Cantilever Retaining Wall, 875
- Béranger, Sandra C.
Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay, 681
- Berawi, A. R.
see Abdul-Rahman, H., 300
- Berawi, M. A.
see Abdul-Rahman, H., 300
- Berber, Mustafa
Robustness Analysis of Two-Dimensional Networks, 1664
- Berechman, J.
see Ozbay, K., 1703
- Bergado, D. T.
see Abuel-Naga, H. M., 862
- Bergado, Dennes T.
see Lorenzo, Glen A., 1279
- Bergant, Anton
see Vítkovský, John, 1001
see Vítkovský, John P., 1000
- Berger, R. C.
see Tate, Jennifer N., 1015
- Bergin, M.
see Kumara, M. W., 1749
- Berglund, Evan M.
Girder Differential Deflection and Distortion-Induced Fatigue in Skewed Steel Bridges, 121
- Bergstrom, Donald E.
see Blatchley, Ernest R., III, 742
- Berli, Markus
Deformation of Pores in Viscoplastic Soil Material, 22
- Bernal, Sionisio
Flexibility-Based Damage Localization from Stochastic Realization Results, 499
- Bernard, Erik Stefan
Influence of Toughness on the Apparent Cracking Load of Fiber-Reinforced Concrete Slabs, 1634
- Bernold, Leonhard E.
see Kolera, Bopanna T., 379
see Nuntasunti, Suchart, 388
- Berrens, Robert P.
see Weber, Matthew A., 1806
- Berry, Jonathan
Sensor Placement in Municipal Water Networks with Temporal Integer Programming Models, 1823
- Berryman, James G.
Effective Medium Theories for Multicomponent Porous Composites, 486
- Berthouex, P. M.
see Chen, Shyi-Tien, 689
- Beysen, Asfaw
Parameter Variation and Part-Load Efficiencies of Wave Energy Conversion, 421
- Bhaddauria, Sudhir Singh
In-Service Durability Performance of Water Tanks, 1377
- Bhallamudi, S. Murty
see Yandamuri, S. R. Murty, 1814
- Bhardwaj, M. K.
Semiactive Fuzzy Control of the Seismic Response of Building Frames, 1519
- Bhasin, Amit
see Hefer, Arno W., 1350
- Bhatt, G.
see Jha, Madan K., 1135
- Bhattacharjya, Rajib Kumar
Optimal Design of Open Channel Section Incorporating Critical Flow Condition, 1223
- Bhattacharyya, Debraj
see Singh, Kripa Shankar, 699
- Bhatti, T. S.
see Singh, Shikha, 420
- Bhede, Kedar M.
see Burguenio, Rigoberto, 1533
- Bhuiyan, A. R.
see Amin, A. F. M. S., 440
- Bhunya, P. K.
see Jain, Sharad K., 1134
- Bian, Shaofeng
Solving an Inverse Problem of a Meridian Arc in Terms of Computer Algebra System, 1641
- Biegler, Lorenz T.
see Laird, Carl D., 1826
- Bielak, Jacobo
see Jarenprasert, Sittipong, 1565
- Bielefeldt, Angela R.
see Cort, Todd L., 595
- Bierawski, Lechoslaw G.
DEM-FEM Model of Highly Saturated Soil Motion Due to Seepage Force, 1892
- Biesiadecki, Gregory L., P.E.
see Ciancia, Andrew J., P.E., 1985
- Bigger, Stephen W.
see Dao, Hien V., 661
- Bijlaard, Frans S. K.
see Coelho, Ana M. Girã, 1530
- Bilec, Melissa
Example of a Hybrid Life-Cycle Assessment of Construction Processes, 1158

- Billington, David P.
see Barelli, Michael, 127
- Bilyeu, John
see Chen, Dar-Hao, 1140
- Bilyeu, John, P.E.
see Chen, Dar Hao, 1690
- Bin, Okmyung
Real Estate Market Response to Coastal Flood Hazards, 1936
- Binda, L.
see Garavaglia, E., 1361
- Bingeman, A. K.
Validation of the Hydrological Processes in a Hydrological Model, 1117
- Binienda, Wieslaw K., ed.
see Malla, Ramesh B., ed., 2061
- Biondini, Fabio
Probabilistic Service Life Assessment and Maintenance Planning of Concrete Structures, 1521
- Birgonul, M. Talat
see Ozorhon, Beliz, 381
- Birkelund, Vibeke
see Lai, Keith C. K., 605
- Birman, Victor
Functionally Graded Stitched Laminates: Illustration on the Example of a Double Cantilever Beam, 78
- Birriel, Elizabeth
see Yan, Xuedong, 1738
- Bisadi, V.
see Maleki, S., 116
- Bishop, Daniel
see Huang, Wenxiong, 45
- Bishop, Paul L., P.E.
see Kupferle, Margaret J., P.E., 656
- Biswas, G.
see Srinivas, Y., 468
- Black, Jessica
Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation, 1119
- Blais, J. F.
see Brar, Satinder K., 1946
see Verma, M., 1969
- Blais, Jean-François
see Levasseur, Béatrice, 654
see Meunier, Nathalie, 660
- Blais, Neil
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Blatchley, Ernest R., III
Dyed Microspheres for Quantification of UV Dose Distributions: Photochemical Reactor Characterization by Lagrangian Actinometry, 742
- Bleckmann, Charles
see Staudinger, Tiffany J., 1146
- Bloniarz, David
see Matteo, Michelle, 1815
- Bloom, Michael
see Suarez, Monica P., 770
- Bloomquist, David
see Hu, Zhihong, 820
- Boardman, D. I.
see Barker, J. E., 1281
see Rogers, C. D. F., 1288
- Bob, Mustafa
Lime-Soda Softening Process Modifications for Enhanced NOM Removal, 600
- Bobbio, Stephen M.
see Chaffin, John H., 431
- Bocca, Pietro
see Antonaci, Paola, 1334
- Bodge, Kevin R., P.E.
Alternative Computation of Dean's Overfill Ratio, 1868
- Bodiford, Melanie P.
Moondust and More, 2011
see Toutanji, Houssam A., P.E., 2010
- Bohrerova, Zuzana
Comparative Inactivation of *Bacillus Subtilis* Spores and MS-2 Coliphage in a UV Reactor: Implications for Validation, 760
- Boillat, Jean-Louis
see De Cesare, Giovanni, 754
- Boll, Jan
see Brooks, Erin S., 1113
- Bollaert, Erik
see Manso, Pedro A., 3
- Bollaert, Erik F. R.
Physically Based Model for Evaluation of Rock Scour due to High-Velocity Jet Impact, 5
- Bolt, B. A.
see Sasani, M., 522
- Bolton, James
Procedure to Quantify Biofilm Activity on Carriers used in Wastewater Treatment Systems, 745
- Bolton, M. D.
see de Groot, M. B., 1877
see Teh, T. C., 1878
- Bolton, Malcolm D.
see Osman, Ashraf S., 821
- Bolton, Robert W.
see Park, Sooyong, 1520
- Boltz, Joshua P.
The Role of Biofloculation on Suspended Solids and Particulate COD Removal in the Trickling Filter Process, 655
- Bolzon, Gabriella
see Puntel, Eric, 556
- Bondi, Robert W.E., P.E.
see Tiberio, Terrence J., P.E., 2026

AUTHOR INDEX

Brandes

- Bonfield, Peter
see Fan, Mizi, 518
- Bonjean, D.
see Foray, P., 1882
- Bonnet, G.
see Msaad, Y., 552
- Bontempi, Franco
see Biondini, Fabio, 1521
- Booker, James F.
Can Reservoir Storage Be Uneconomically Large?, 1854
see Ward, Frank A., 1851
- Boonyasirikul, Thana
see Tingsanchali, Tawatchai, 1812
- Borcharding, John D.
see Srour, Issam M., 392
- Borden, Robert C., P.E.
see Coulibaly, Kapo M., 1095
see Jung, Yong, 1096
- Boreel, Gerard L.
see Hesseslink, Annika W., 945
- Borguet, Eric
see Feng, Wenguo, 615
- Boriboonsomsin, Kanok
Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment, 1753
- Bose, Gaurav
see Rao, N. N., 624
- Bose, Purnendu
see Lavania, Amit, 712
- Bosela, Paul A., ed.
Forensic Engineering (2006), 2066
- Bouazza, Abdelmalek
Effect of Wet — Dry Cycles and Cation Exchange on Gas Permeability of Geosynthetic Clay Liners, 871
- Bouchart, F. J.-C.
see Davidson, J. W., 942
- Boufadel, Michel C.
Tracer Studies in Laboratory Beach Simulating Tidal Influences, 668
see Kaku, Vikram J., 593
- Boulanger, Ross W.
Liquefaction Susceptibility Criteria for Silts and Clays, 908
see Kulasingam, R., 7
see Malvick, Erik J., 897
- Boult, Peter J.
see Camac, Bronwyn A., 52
- Bourdaro, Eric
see Poyet, Stéphane, 1328
- Bourgeois, F.
see Shao, J. F., 23
- Bousmar, D.
see Proust, S., 1026
- Bouwer, Edward J.
see Hwang, Sangchul, 610
- Bower, Kevin C., P.E.
see Hassan, Kazi Z. A., 767
- Bowman, Andrew L.
see Allouche, Erez N., 1923
- Bowman, Mark D.
see Chotickai, Piya, 111
see Chotickai, Piya, 169
- Boyd, Andrew J.
see Minchin, R. Edward, Jr., 1258
- Boyd, Stephen A.
see Gellner, W. James, II, 773
- Bozorgzadeh, Azadeh
Capacity Evaluation of Exterior Sacrificial Shear Keys of Bridge Abutments, 158
- Bracci, Joseph M.
see Ramamoorthy, Sathish K., 1593
- Bracher, M.
see Papagiannakis, A. T., P.E., 1759
- Brachman, R. W. I.
see Gudina, S., 902
- Braden, John B.
see Johnston, Douglas M., 1804
- Bradford, Mark A.
see Wang, Tao, 1601
- Bradford, Mark Andrew
see Pi, Yong-Lin, 1515
see Pi, Yong-Lin, 1516
- Bradford, Scott F.
see Sanders, Brett F., 443
- Bradshaw, A. S.
Simple Dynamic Model for Fender Pile Analysis and Design, 1895
- Brady, M. J.
see Eisinger, D. S., 1756
- Brady, Sean P.
Effect of Vehicle Velocity on the Dynamic Amplification of a Vehicle Crossing a Simply Supported Bridge, 128
Effect of Vehicle Velocity on the Dynamic Amplification of Two Vehicles Crossing a Simply Supported Bridge, 129
- Braga, Franco
Analytical Stress — Strain Relationshi for Concrete Confined by Steel Stirrups and/or FRP Jackets, 1577
- Branco, Fernando António Baptista Branco
see Correia, João Pedro Ramôa Ribeiro, 131
- Brandenburg, Stefanie G.
Strategic Management of Human Resources in Construction, 1248
- Brandes, Horst G.
Correlation of Aggregate Test Parameters to Hot Mix Asphalt Pavement Performance in Hawaii, 1672

Brandimarte

Brandimarte, Luigia

Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils, 980

Brandon, Thomas L.

Drained and Undrained Strength Interpretation for Low-Plasticity Silts, 802

Brankman, Charles M.

see Baise, Laurie G., 844

Brar, S. K.

see Verma, M., 1969

Brar, Satinder K.

Bioremediation of Hazardous Wastes — A Review, 1946

Bray, Jonathan D.

Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, 885

see Rodriguez-Marek, Adrian, 928

see Zekkos, Dimitrios, 893

Brenkert-Smith, Hannah

The Place of Fire, 1932

Brennan, Linda L.

Operations Management for Engineering Consulting Firms: A Case Study, 1249

Brennan, Rachel A.

Biodegradation of Tetrachloroethene by Chitin Fermentation Products in a Continuous Flow Column System, 673

Brenner, Brian, P.E.

Don't Throw This Away!: The Civil Engineering Life, 2060

Bréul, Pierre

In Field Soil Characterization: Approach Based on Texture Image Analysis, 787

Brezonik, Patrick L.

see Rockne, Karl J., 633

Briaud, Jean-Louis

BCD: A Soil Modulus Device for Compaction Control, 788

see Brandimarte, Luigia, 980

Briggs, Ryan R.

see Balling, Richard J., 1552

Brilakis, Ioannis

Multimodal Image Retrieval from Construction Databases and Model-Based Systems, 365

Brill, E. Downey

see Kumar, Sujay V., 1840

Brisette, François P.

see Lavallée, Stéphane, 1808

Bristow, Elizabeth C.

Delay between Sensing and Response in Water Contamination Events, 1145

Bröchner, J.

see Waara, F., 367

Brodetskaia, I.

see Sacks, R., 256

Brody, Samuel D.

see Highfield, Wesley E., 1934

2006 ASCE TRANSACTIONS

Brooks, Erin S.

Global Positioning System/GIS-Based Approach for Modeling Erosion from Large Road Networks, 1113

Brooks, Michael C.

see Hwang, Sangchul, 610

Brown, Andrea J.

see Béranger, Sandra C., 681

Brown, Casey

Effect of Forecast-Based Pricing on Irrigated Agriculture: A Simulation, 1843

Brown, David L.

see Catbas, F. Necati, 1607

Brown, Hyman

see Chinowsky, Paul S., 1416

Brown, Jeff L.

Turnpike Transformation, 2038

Brown, Jim

see Shimada, Masashi, 961

Brown, Stephen C.

see Ancich, Eric J., 157

Brown, Thomas G.

see Ruwanpura, Janaka Y., 1432

Bruckner, J.

see Gasparini, D. A., 1480

Bruen, Michael

Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems, 1131

Bruen, Michael P.

Through it All, 2004

Brühwiler, Eugen

see Habel, Katrin, 1615

Brumbelow, Kelly

see Bristow, Elizabeth C., 1145

Brunelle, Andrea

see Kim, Tac H., 1922

Bruno, Michael S.

see Roarty, Hugh J., 1875

Brusseau, Mark L.

see Simon, Michelle A., P.E., 599

Bryant, Paul T., P.E.

Decline of the Engineering Class: Effects of Global Outsourcing of Engineering Services, 1910

Bu, J. Q.

Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle, 579

see Law, S. S., 442

Buchberger, Steven G.

see Khanal, Nabin, 1830

Buckle, Ian G.

see Carden, Lyle P., 1471

see Carden, Lyle P., 1472

Bucur, Daniel

Considerations from the Design of Intercepting Drainage for Collecting Water from Seep Areas, 1231

AUTHOR INDEX

Camenen

- Budek, Andrew
Validation of Finite-Element Analyses for Storm Shelters, 89
- Budhu, Muniram
see Merry, Scott M., 829
- Bugmann, G.
see Zhou, G. C., 276
- Bulleit, William M.
Reliability of Steel Doweled Wood Connections Designed to ASCE 16-95, 1482
- Bullock, Darcy M.
see Garcia, Camilo, 339
see Nichols, Andrew P., 1666
- Bunz, Kimberly R.
Survey of Sustainable Building Design Practices in North America, Europe, and Asia, 88
- Buonopane, S. G.
Reliability of Steel Frames Designed with Advanced Analysis, 1465
- Burgueño, Rigoberto
Membrane-Based Forms for Innovative FRP Bridge Systems through Structural Optimization, 234
Shear Response of Concrete-Filled FRP Composite, 1533
- Burke, Susan
see Marques, Guilherme F., 1849
- Burkett, William R.
see Bai, Yong, 400
- Burkett, William R., P.E.
see Bai, Yong, P.E., 130
see Bai, Yong, P.E., 321
- Burkhalter, J. Philip
Evaluating Regional Solutions to Salinization and Waterlogging in an Irrigated River Valley, 1166
- Burks, K.H. @ rshall Space Flight Center (MSFC), in Huntsville, Alabama.
see Bodiford, Melanie P., 2011
- Burman, Brian C.
Sudden Failure of a Heavily Loaded Container Pavement, 912
- Burnett, Eric
see Shi, Xing, 92
- Burns, S. E.
Coupled Mechanical and Chemical Behavior of Bentonite Engineered with a Controlled Organic Phase, 907
- Burns, Scott A.
see Liu, Min, 1444
- Burrell, Brian C.
see Beltaos, Spyros, 1056
- Burris, Mark, P.E.
Benefit-Cost Analysis of Variable Pricing Projects: QuickRide HOT Lanes, 1682
see Sullivan, Edward, P.E., 1683
- Burton, Melissa D.
Frequency Dependence of Human Response to Wind-Induced Building Motion, 1468
- Bussi re, B.
see Mbonimpa, M., 881
- Butler, Colleen J.
Emotional Intelligence and Leadership Behavior in Construction Executives, 1251
- Buttlar, William G.
Application of Graded Finite Elements for Asphalt Pavements, 459
see Song, Seong Hyeok, 563
- B y k zt rk, Oral
see Au, Ching, 192
- Byfield, Mike P.
Behavior and Design of Commercial Multistory Buildings Subjected to Blast, 1398
- Byrd, Larry W.
see Birman, Victor, 78
- Byrom, Keith
see Brandenburg, Stefanie G., 1248
- Byron, Tom
see Onar, Arzu, 1748
- Byung-Tak, Kim
see Young-Su, Kim, 917
- Cable, James K.
see Wang, Kejin, 1302
- Cabrillac, Richard
see Delfosse-Ribay, Estelle, 823
- Cai, C. S.
see Zhang, Yin, 144
- Cai, Hubo
Geographic Information Systems/National Elevation Data Route Mileage Verification, 1646
- Cai, J. G.
see Zhao, X. B., 498
- Cai, Meifeng
see Xie, Mowen, 839
- Cai, Ximing
Calibrating Holistic Water Resources — Economic Models, 1844
see Ringler, Claudia, 1850
- Caldas, Carlos H.
Using Global Positioning System to Improve Materials-Locating Processes on Industrial Projects, 361
see Costa, Dayana B., 1255
see Kim, Changwan, 262
see Song, Jongchul, 378
- Calijuri, Maria L cia
see Melo, Andr  L. O., 1652
- Calloway, Bond, Jr.
see Vijayaraghavan, Krishna, 680
- Camac, Bronwyn A.
Local Rotations in Borehole Breakouts — Observed and Modeled Stress Field Rotations and Their Implications for the Petroleum Industry, 52
- Camenen, Beno t
Equivalent Roughness Height for Plane Bed under Steady Flow, 1048

Cameron, Shara

see Peirson, William L., 1044

Camotim, Dinar

see Silvestre, Nuno, 1491

Campbell, Brian K.

Improving Fluid Flow in Clarifiers using a Highly Porous Media, 726

Campbell, Douglas

Failure Mechanisms and Deployment Accuracy of Elastic-Memory Composites, 75

Campbell, Lorna

see Manes, Costantino, 1028

Campos, Luiza C.

Deterministic-Based Model of Slow Sand Filtration. I: Model Development, 697

Deterministic-Based Model of Slow Sand Filtration. II: Model Application, 698

Canbay, Erdem

High-Strength Concrete Columns under Eccentric Load, 1541

Cao, Guangjing

see Dai, Huichao, 349

Cao, Maosen

Nondestructive Assessment of Reinforced Concrete Structures Based on Fractal Damage Characteristic Factors, 531

Cao, Zhixian

Explicit Formulation of the Shields Diagram for Incipient Motion of Sediment, 1041

Flow Resistance and Momentum Flux in Compound Open Channels, 1059

Capitão, Silvino Dias

Assessing Permanent Deformation Resistance of High Modulus Asphalt Mixtures, 1704

Caplow, Ted

see Ho, David T., 774

Capra, Bruno

see Poyet, Stéphane, 1328

Capri, Salvatore

see Ignaccolo, Matteo, 1789

Caravelli, Alejandro

Effect of Ozone on Filamentous Bulking in a Laboratory Scale Activated Sludge Reactor using Respirometry and INT-Dehydrogenase Activity, 713

Carden, Lyle P.

Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Single Angle X Braces, 1471

Seismic Performance of Steel Girder Bridges with Ductile Cross Frames using Buckling-Restrained Braces, 1472

Cardenas, Henry E.

Electrokinetic Nanoparticle Treatment of Hardened Cement Paste for Reduction of Permeability, 1323

Cardon, Grant E.

see Garcia, Luis A., 1227

see Wittler, James M., 1213

Cardoso, António Heleno

see Leal, João Gouveia Aparício Bento, 938

Carnivale, Michael, III

see Grubb, Dennis G., 831

Carnivale, Michael, III

see Grubb, Dennis G., 830

Carpenter, Samuel H.

see Pan, Tongyan, 1726

Carpenter, Theresa M.

see Shamir, Eylon, 1111

Carpinteri, Alberto

Structural Monitoring and Integrity Assessment of Medieval Towers, 1605

Carré, H.

see Noumowé, A., 1349

Carrillo, Patricia

Exploiting Knowledge Management: The Engineering and Construction Perspective, 1237

Carrillo, Patricia M.

see Al-Ghassani, Ahmed M., 340

Carron, John C.

Modeling Uncertainty in an Object-Oriented Reservoir Operations Model, 1176

Carter, Gregory

Safety Hazard Identification on Construction Projects, 308

Carter, J. P.

see Surjadinata, J., 49

Carter, Stephen

see Zou, Rui, 644

Casagrande, Michèle Dal Toé

Behavior of a Fiber-Reinforced Bentonite at Large Shear Displacements, 918

Casas, J. R.

see Ramos, G., 240

Casello, Jeffrey M.

Transportation Activity Centers for Urban Transportation Analysis, 1800

Cassada, David

see Adam, Michael, 763

Cassidy, Eric D.

Performance of Wood Shear Walls Sheathed with FRP-Reinforced OSB Panels, 1453

Castro, María

Fatigue and Healing of Asphalt Mixtures: Discriminate Analysis of Fatigue Curves, 1680

Castro-Lacouture, Daniel

Implementing a B2B e-Work System to the Approval Process of Rebar Design and Estimation, 248

Cataño-Lopera, Yovanni

Burial of Short Cylinders Induced by Scour under Combined Waves and Currents, 1897

Catbas, F. Necati

Use of Modal Flexibility for Damage Detection and Condition Assessment: Case Studies and Demonstrations on Large Structures, 1607

AUTHOR INDEX

Chan

Cavalcanti, Luiz F. N.

see Steinemann, Anne C., 1817

Çavdar, Ahmet

see Yetgin, Şükrü, 1356

Ceccotti, Ario

see Fragiaco, Massimo, 1440

Çelebi, Mehmet

see Rodgers, Janise E., 1591

Cent, Minyi

see Zhou, Guoqing, 1782

Cerato, A. B.

Bearing Capacity of Square and Circular Footings on a Finite Layer of Granular Soil Underlain by a Rigid Base, 916

Cerco, Carl

see Wang, Ping, 625

Ceroni, Francesca

see Pecce, Marisa, 207

Cervantes, Refugio

see Rojas, Eduardo, 43

see Rojas, Eduardo, 44

Cetin, K. O.

see Moss, R. E. S., 873

Cetin, K. Onder

Standard Penetration Test-Based Probabilistic and Deterministic Assessment of Seismic Soil Liquefaction Potential, 10

Četina, Matjaž

Case Study: Numerical Simulations of Debris Flow below Stože, Slovenia, 943

Ceyla, Ayhan

Precise Height Determination using Leap-Frog Trigonometric Leveling, 1657

Ceylan, Halim

Developing Combined Genetic Algorithm — Hill-Climbing Optimization Method for Area Traffic Control, 1736

Cha, Dong-Hoon

see Park, Heekyung, 762

Cha, Hee Sung

Characteristics for Leveraging Value Management Processes on Capital Facility Projects, 1253

Chaallal, Omar

CFRP Repair and Strengthening of Structurally Deficient Piles: Design Issues and Field Application, 191

Circular Columns Confined with FRP: Experimental versus Predictions of Models and Guidelines, 189

see Arockiasamy, Madasamy, 1366

Chaallal, Omar, P.E.

see Lan, André, P.E., 1974

Chaffin, John H.

Hydrogen Production by Plasma Electrolysis, 431

Chahrouh, Ali

see El Maaddawy, Tamer, 202

Chahrouh, Ali H.

Structural Retrofitting of Deteriorated Concrete Lighting Poles using FRP Sheets in Wet Layup — Field Application, 211

Chai, Jin-Chun, ed.

see Porbaha, Ali, ed., 2072

Chai, Y. H.

see Wang, C. M., 1463

Chakrabarti, Partha, P.E.

see Chakrabarti, Subrata K., P.E., 1869

Chakrabarti, Subrata K., P.E.

Design, Construction, and Installation of a Floating Caisson used as a Bridge Pier, 1869

Chakraborty, D.

see Rao, S. V. N., 1118

Chakraborty, Santanu

Development and Implementation of a Continuous Strain Monitoring System on a Multi-Girder Composite Steel Bridge, 179

Chakravarthy, Srikanth

see Ishak, Sherif, 277

Chakraborty, Partha

see Agarwal, Pradeep Kumar, 1141

Challamel, Noël

On the Comparison of Timoshenko and Shear Models in Beam Dynamics, 554

Chamani, Mohammad R.

see Beirami, M. K., 1037

Chamness, Crystal, P.E.

see Hook, David E., P.E., 2032

Chan, A. H. C.

see Dunn, S. L., 1881

Chan, Andy T.

Analytical Study of Turbulent Pollutant Dispersion near a Low Hill, 444

Chan, C. H. C.

see Lam, K. M., 991

Chan, Charles K. L.

see Chan, Edwin H. W., 332

Chan, Chun-Man

Nonlinear Stiffness Design Optimization of Tall Reinforced Concrete Buildings under Service Loads, 1536

Chan, Edwin H. W.

MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects, 332

Chan, F.

see Zhang, L. M., 854

Chan, Philip C. F.

Security of Payment Legislation — Case of a Blunt but Practical and Equitable Instrument, 1427

Chan, S. L.

see Law, S. S., 442

Chan, Wai-Shan

Assessment of Dynamic Measurement Accuracy of GPS in Three Directions, 1656

- Chan, Wing
see Ariaratnam, Samuel T., 1984
- Chandra, Satish
 Structural Adequacy of Flexible Pavements with Types and Widths of Shoulders, 1670
see Dey, Partha Pratim, 1713
see Dey, Partha Pratim, 1728
see Kumar, Praveen, 1326
- Chandramouli, Magesh
see Liu, Nan, 286
- Chang, Andrew S., P.E.
 System Model for Analyzing Design Productivity, 1240
- Chang, C. C.
 Evaluation of a GPS-Based Approach for Rapid and Precise Determination of Geodetic/Astronomical Azimuth, 1661
- Chang, C. S.
see Hicher, P.-Y., 874
- Chang, Chang-Ching
see Lin, Chi-Chang, 549
- Chang, Cheng-Feng
 Development and Production of Ready-Mixed Soil Material, 1354
- Chang, Cheng-Hsin
 Computational Fluid Dynamics Simulation of Concentration Distributions from a Point Source in the Urban Street Canyons, 67
- Chang, E. E.
see Hsing, Hao-Jan, 1940
- Chang, Feng-Yueh
see Lin, Yun-Huin, 630
- Chang, Gang-Len
see Liu, Ying, 1751
- Chang, Heui-Yung
 Effects of Ground Motion Parameters and Cyclic Degradation Behavior on Collapse Response of Steel Moment-Resisting Frames, 1592
- Chang, Howard H.
see Huang, He Qing, 1002
- Chang, Hsien-Kuo
 Solving Wave Dispersion Equation for Dissipative Media using Homotopy Perturbation Technique, 1857
- Chang, Hsin-Li
 Risk Factors to Driver Fatalities in Single-Vehicle Crashes: Comparisons between Non-Motorcycle Drivers and Motorcyclists, 1687
- Chang, Kuang-An
see Jung, Kwang Hyo, 454
see Lin, Chang, 488
- Chang, Kuo-Chun
see Lin, Tzu-Kang, 1566
see Lin, Tzu-Kang, 1567
- Chang, S. Y.
see Han, S. C., 69
- Chang, Shuenn-Yih
 Accurate Representation of External Force in Time History Analysis, 438
- Chang, Stephanie
see Scawthorn, Charles, 1929
- Chang, Sung-Chieh
see Lin, Chang, 488
- Chang, Wen-Jong
see Lai, Sheng-Yao, 843
- Changnon, Stanley A.
 Frequency Distributions of Heavy Snowfall from Snowstorms in the United States, 1114
- Chanona, J.
 Simple Rule-Based Algorithm for Optimizing Volatile Fatty Acids Production in Primary Sludge Fermentation Schemes, 747
- Chansawat, Kasidit
 Nonlinear Finite-Element Analysis of a FRP-Strengthened Reinforced Concrete Bridge, 106
- Chanson, H.
 Dam Break Wave of Thixotropic Fluid, 960
 Minimum Specific Energy and Critical Flow Conditions in Open Channels, 1221
- Chanton, Jeffrey
see Abichou, Tarek, 607
- Chao, Jianghui
see Singh, Rajkeshar, 84
- Chao, Keh-Ping
 Estimation of Diffusion Coefficients and Solubilities for Organic Solvents Permeation through High-Density Polyethylene Geomembrane, 657
- Chao, Kuo-Chieh, P.E.
 Design and Installation of Deep Benchmarks in Expansive Soil, 1658
- Chao, Shih-Ho
 Ductile Web Fracture Initiation in Steel Shear Links, 1556
- Chao, Xiaobo
 Development and Application of a Phosphorus Model for a Shallow Oxbow Lake, 753
- Chao, Yi-Feng
see Chen, Hung-Ming, 260
- Chapman, Robert E.
see Matthews, Benjamin, 1259
- Characklis, Gregory W.
see Fries, J. Stephen, 736
see Kirsch, Brian R., 1847
see Travaglia, Andrerá M., 1853
- Charbeneau, Randall J.
 Hydraulic Performance Curves for Highway Culverts, 978
- Charney, Finley A., ed.
 17th Analysis and Computation Specialty Conference, 2044
- Chartier, Myriam
see Levasseur, Béatrice, 654

AUTHOR INDEX

Chen

Chastain, James R., Jr., P.E.

Methodology for Locating Monitoring Stations to Detect Contamination in Potable Water Distribution Systems, 1162

Chatterjee, Chandranath

see Sahoo, Bhabagrahi, 1124

Chatti, Karim

see Salama, Hassan K., 1747

Chaudhry, M. H.

see Mohapatra, P. K., 952

Chaudhuri, Dipankar

Life of Maithon Reservoir on Ground of Sedimentation: Case Study in India, 1019

Chaudhuri, Reaz A.

see Kim, Deokjoo, 569

Chaudhuri, Samit Ray

Fragility of Bench-Mounted Equipment Considering Uncertain Parameters, 1527

Chavel, B. W.

Construction of a Horizontally Curved Steel I-Girder Bridge. Part I: Erection Sequence, 112

Construction of a Horizontally Curved Steel I-Girder Bridge. Part II: Inconsistent Detailing, 113

Chazallon, C.

Elastoplastic Model for the Long-Term Behavior Modeling of Unbound Granular Materials in Flexible Pavements, 40

Cheah, Charles Y. J.

see Yee, Chung Yan, 1254

see Yee, Chung Yan, 1260

Chen, Anthony

see Lee, Ming S., 1790

Chen, C. M.

Elastic Constants Identification of Composite Materials using Single Angle-Ply Laminate, 560

Chen, C. Y.

see Lai, C. H., 1942

Chen, Chi-Chung

Elevation-Dependent Management of the Edwards Aquifer: Linked Mathematical and Dynamic Programming Approach, 1836

Chen, Chien-Hsun

see Liu, Chia-Nan, 886

Chen, Chuin-Shan

see Leu, Liang-Jenq, 1531

Chen, Dar Hao

Lessons Learned on Jointed Concrete Pavement Rehabilitation Strategies in Texas, 1690

Chen, Dar-Hao

Failure Investigation of a Foamed-Asphalt Highway Project, 1140

Chen, Guohua

see Fang, Qian, 584

see Hu, Jing, 679

Chen, Huang-Lin

see Lin, Chi-Chang, 549

Chen, Hua-Wei

see Ku, Young, 775

Chen, Hung-Ming

Application of Web Services for Structural Engineering Systems, 260

Chen, Jieyun

Analytical Urban Storm Water Quality Models Based on Pollutant Buildup and Washoff Processes, 734

Semidistributed Form of the Tank Model Coupled with Artificial Neural Networks, 1112

Chen, Jing-Wen

see Chang, Cheng-Feng, 1354

Chen, Joseph Y.

see Desai, Chandra S., 19

Chen, Ju

Behavior of High Strength Structural Steel at Elevated Temperatures, 1631

Chen, Ko-Wei

see Tsai, Yung-Pin, 602

Chen, Kuo-Cheng

see Lin, Yun-Huin, 630

Chen, Liang-Chien

Measuring System for Cracks in Concrete using Multitemporal Images, 1651

Chen, Liang-Chuan

Charge Reversal Effect on Blanket in Full-Scale Floc Blanket Clarifier, 756

Chen, Qin

Fully Nonlinear Boussinesq-Type Equations for Waves and Currents over Porous Beds, 457

Chen, Sheng-Jin

see Yang, Min-Lung, 293

Chen, Shi-Shuenn

Simplified Model for Vertical Vibrations of Surface Foundations, 838

see Hsiung, Yun-Mei, 899

Chen, Shun-Tyan

see Yang, Min-Lung, 293

Chen, Shyi-Tien

Fate and Modeling of Pentachlorophenol Degradation in a Laboratory-Scale Anaerobic Sludge Digester, 689

Treating Soil PCP at Optimal Conditions using Heme and Peroxide, 678

Chen, Stuart S., P.E.

see Ahn, Il-Sang, 475

Chen, Su Huan

Dynamic Response of Closed-Loop System with Uncertain Parameters using Interval Finite-Element Method, 520

Chen, W. S.

see Cheng, Y. M., 42

Chen, W. Z.

see Shao, J. F., 23

Chen, Wenling

Effectiveness of Learning Transportation Network Growth through Simulation, 1410

- Chen, Xinzong**
Analysis of Long Span Bridge Response to Winds:
Building Nexus between Flutter and Buffeting, 1637
Revisiting Multimode Coupled Bridge Flutter: Some
New Insights, 551
- Chen, Yang**
see Fang, Dongping, 345
- Chen, Yi**
Durability Prediction for GFRP Reinforcing Bars using
Short-Term Data of Accelerated Aging Tests, 216
- Chen, Yingzhao**
see Kopp, Gregory A., 1529
- Chen, Yongbing**
see Bian, Shaofeng, 1641
- Chen, Yuh-Jyh**
see Hsu, Tung-Wen, 1681
- Chen, Yunliang**
see Ye, Mao, 1021
- Chen, Z. Q.**
see Kavvas, M. L., 1099
- Chen, ZhiQiang**
see Hutchinson, Tara C., 265
- Chen, Zhiyi**
Hysteretic Model of Stiffened Shear Panel Dampers,
1486
- Cheng, C. H.**
see Lin, T. T., 1953
- Cheng, Eddie W. L.**
Job Performance Evaluation for Construction Companies:
An Analytic Network Process Approach, 370
- Cheng, G. H.**
see Tan, K. H., 1507
- Cheng, Han-Tsung**
see Lin, Chiou-Liang, 708
- Cheng, J. J. R.**
see Khoo, H. A., 546
- Cheng, Juey-Fu**
Model for Three-Dimensional Highway Alignment,
1764
- Cheng, Lijuan**
Fatigue Behavior of a Steel-Free FRP—Concrete
Modular Bridge Deck System, 150
- Cheng, Y. M.**
New Approach to Determine Three-Dimensional Contacts
in Blocks System: Penetration Edges Method,
42
- Chennapragada, Uday Kiran**
see Chandra, Satish, 1670
- Cheung, Fiona Y. K.**
see Rowlinson, Steve, 1414
- Cheung, Kwok Fai**
see Wei, Yong, 1866
- Cheung, Sai Hung**
see Kafatygiotis, Lambros, 482
- Cheung, Sai On**
How Relational are Construction Contracts?, 1411
A Study of Styles and Outcomes in Construction Dispute
Negotiation, 368
see Yiu, Tak Wing, 389
- Chi, W.-M.**
Prediction of Ductile Fracture in Steel Connections
using SMCS Criterion, 1455
- Chiang, Chow F.**
Critical Analysis of Computing Equations for Determination
of BOD by Dilution Methods, 651
- Chiang, Pen-Chi**
see Hsing, Hao-Jan, 1940
- Chiavaccini, Pietro**
see Pagliara, Stefano, 935
see Pagliara, Stefano, 986
see Pagliara, Stefano, 1197
- Chien, Chao-Yu**
see Show, Kuan-Yeow, 1267
- Chien, Sheng-Fen**
see Perng, Yeng-Hong, 390
- Chien, Yi-Chi**
Emission of Polycyclic Aromatic Hydrocarbons on the
Combustion of Liquid Crystal Display Components,
716
- Chiew, Sing-Ping**
see Lie, Seng-Tjhen, 1475
see Lie, Seng-Tjhen, 1476
- Chiewanichakorn, Methee**
see Alnahhal, Wael I., 148
- Chim, Pui Shan**
see Cheung, Sai On, 1411
- Chin, Chung-Tien, ed.**
see Zhu, Hehua, ed., 2095
- Chin, Hoong Chor**
Influence of School Accessibility on Housing Values,
1785
- Chinea, Reynaldo R.**
Total Friction Loss along Multiple Outlets Pipes with
Open End, 1167
- Ching, Jianye**
Bayesian State Estimation Method for Nonlinear Systems
and its Application to Recorded Seismic Response, 474
- Chinnarasri, Chaiyuth**
Flow Patterns and Energy Dissipation over Various
Stepped Chutes, 1172
- Chinowsky, Paul**
see Carrillo, Patricia, 1237
- Chinowsky, Paul S.**
Developing Knowledge Landscapes through Project-
Based Learning, 1416
see Butler, Colleen J., 1251
- Chipello, Peter L.**
see Miller, Jennifer H., 732
- Chirgwin, Gordon J.**
see Ancich, Eric J., 157

AUTHOR INDEX

Chu

- Chiu, Chui-Te
see Chen, Dar-Hao, 1140
- Chiu, Yi-Chang
see Gharaibeh, Nasir G., P.E., 1137
- Chiu, Yu-Jia
see Lee, Hong-Yuan, 1109
- Cho, Chung-Suk
see Gibson, G. Edward, Jr., 1241
- Cho, Gye-Chun
Particle Shape Effects on Packing Density, Stiffness,
and Strength: Natural and Crushed Sands, 832
- Cho, Hsun-Jung
see Jou, Yow-Jen, 1794
- Cho, Sang-Won
see Jo, Ji-Seong, 515
- Cho, Yon-Ho
UTW Behavior on Asphalt Pavements Tested with
HWLS, 1760
- Cho, Young-Jun
Characteristics of Contractor's Liabilities for Defects
and Defective Work in Korean Public Projects, 1422
- Chodraui, Gustavo Monteiro de Barros
Distortional Buckling of Cold-Formed Steel Members,
1503
- Choi, Christopher Y.
see Song, Inhong, 725
- Choi, Derek
see Ariaratnam, Samuel T., 1984
- Choi, E. S. C.
see Wong, R. C. K., 904
- Choi, Hangseok
Slug Test Analysis in Vertical Cutoff Walls. I: Analy-
sis Methods, 817
- Slug Test Analysis in Vertical Cutoff Walls. II: Appli-
cations, 818
- Choi, Hyunhoon
see Kim, Jinkoo, 1526
- Choi, K.
see Park, H., 1509
- Choi, Keechoo
see Lee, Sangsoo, 1750
- Choi, S.
see Han, S. C., 69
- Choi, Yeol
see Jung, Jiwon, 164
- Choi, Young Cheol
see Oh, Byung Hwan, 545
- Chon, Kyung Soo
see Suh, Wonho, 1734
- Chong, Wai Kiong
see Beheiry, Salwa M. A., 326
- Chong, Wai-Kiong
Latent Building Defects: Causes and Design Strategies
to Prevent Them, 1386
- Choo, C. C.
see Alagusundaramoorthy, P., 141
- Chootinan, Piya
see Lee, Ming S., 1790
- Chopra, Anil K.
see Ryan, Keri L., 1548
- Chotickai, Piya
Comparative Study of Fatigue Provisions for the
AASHTO Fatigue Guide Specifications and LRFR
Manual for Evaluation, 169
- Truck Models for Improved Fatigue Life Predictions of
Steel Bridges, 111
- Chou, C. C.
Experimental Evaluation of Compressive Behavior of
Orthotropic Steel Plates for the New San Francisco
— Oakland Bay Bridge, 118
- Chou, Shan-Shan
see Chen, Liang-Chuan, 756
- Chou, Yi-Chuan
see Hsiung, Yun-Mei, 899
- Choubane, B., P.E.
see Kumara, M. W., 1749
- Choubane, Bouzid
see Onar, Arzu, 1748
- Choudhury, Deepankar
Seismic Bearing Capacity of Shallow Strip Footings
Embedded in Slope, 30
- Choura, S.
see Baccouch, M., 72
- Chow, Lee-Fang
see Li, Min-Tang, 1735
- Chow, Y. K.
see Leung, C. F., 781
- see* Ong, D. E. L., 780
- Chowdhury, B.
Laboratory Study of Liquefaction due to Wave-Seabed
Interaction, 856
- Chowdhury, Shakhawat
Evaluation of Drinking Water Treatment Technology:
An Entropy-Based Fuzzy Application, 728
- Christenson, Richard E.
Coupled Building Control Considering the Effects of
Building/Connector Configuration, 1524
- Experimental Verification of Smart Cable Damping,
462
- Christian, John
see Newton, Linda A., 1157
- Christy, Craig T., P.E.
Engineering with the Spreadsheet — Structural Engi-
neering Templates Using Excel, 2063
- Chryssanthopoulos, Mariou K.
see Photiou, Nikolaos K., 1335
- Chu, B. L.
see Chu, Daniel B., 922

Chu, Daniel B.

Liquefaction-Induced Lateral Spreading in Near-Fault Regions during the 1999 Chi-Chi, Taiwan Earthquake, 922

Chu, Hsin

see Hung, Wen-Chi, 751

Chu, Lily

see Fong, Patrick Sik-wah, 380

Chu, Sue-Hua

see Weng, Chih-Huang, 1959

Chu, Xuefeng

Improved Compartmental Modeling and Application to Three-Phase Contaminant Transport in Unsaturated Porous Media, 606

Chua, D. K. H.

CB-Contract: Case-Based Reasoning Approach to Construction Contract Strategy Formulation, 284

Chua, David K. H.

Use of a WBS Matrix to Improve Interface Management in Projects, 234

see Song, Yuanbin, 418

Chua, Lloyd H. C.

Coupling of U-Tube and Shear Layer Oscillations in an Interconnected Flow Compartment, 511

Chucheeesakul, S.

see Phungpaingam, B., 436

Chucheeesakul, Somchai

see Pulngern, Tawich, 1517

Chugh, Y. P.

see Mohanty, Samrat, 1769

Chugh, Yoginder

see Mohanty, Samrat, 1993

Chui, Ying H.

see Mi, Hongyong, 1452

Chun, Yoon-Moon

see Naik, Tarun R., 1347

Chung, D. D. L.

see Wen, Sihai, 1299

Chung, H. S.

see Kwon, Y. B., 1498

Chung, Hsin-Yang

Optimal Inspection Scheduling of Steel Bridges using Nondestructive Testing Techniques, 134

Chung, Lip-Lai

see Lin, Tzu-Kang, 1566

Chung, Shin Fun

Effect of Penetration Rate on Penetrometer Resistance in Clay, 887

Chung, Tae Hwan

Bayesian Updating Application into Simulation in the North Edmonton Sanitary Trunk Tunnel Project, 376

Chung, Weihao

Classifying River Waves by the Saint Venant Equations Decoupled in the Laplacian Frequency Domain, 998

Chung, Wonseok

Influence of Secondary Elements and Deck Cracking on the Lateral Load Distribution of Steel Girder Bridges, 122

Chusilp, Praween

see Inoue, Kazuo, 1525

Chyan, J.-M.

see Lu, M.-C., 1965

Chyan, Yuh-Ju

see Lee, Kwan Tun, 963

Ciancia, Andrew J., P.E.

Challenges of Underpinning Two Landmark Buildings, 1985

Clar, Michael, ed.

see Field, Richard, ed., 2052

Clark, Shawn

Laboratory Experiments on Frazil-Size Characteristics in a Counterrotating Flume, 941

Clark, Shirley, ed.

see Field, Richard, ed., 2052

Clayton, Wilson

see Adam, Michael, 763

Clemens, François H. L. R.

see Korving, Hans, 1039

Clements, Nancy, P.E.

see Warren, Christopher L., P.E., 1916

Clemmens, A. J.

see Bautista, E., 1180

Clemmens, Albert J.

Accuracy of Annual Volume from Current-Meter-Based Stage Discharges, 1121

see Wahlin, Brian T., 1186

see Wahlin, Brian T., 1187

Cleveland, Theodore G.

Instantaneous Unit Hydrograph Evaluation for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas, 1218

Cliff, Eugene M.

see Salehian, Armaghian, 79

Clift, Charles D.

Curtain Wall Designs for Wind and Blast: Three Case Studies, 99

Clyne, Timothy R.

see Marasteanu, Mihai O., 1304

Coelho, Ana M. Girã

Finite - Element Modeling of the Nonlinear Behavior of Bolted-T-Stub Connections, 1530

Cohen, Ayala

see Gitelman, Victoria, 1668

Coifman, Benjamin

Vehicle Level Evaluation of Loop Detectors and the Remote Traffic Microwave Sensor, 1686

Cokgor, Emine Ubay

Respirometric Assessment of Primary Sludge Fermentation Products, 590

AUTHOR INDEX

Couto

- Cole, Britton**
Flexural Load Testing of Concrete-Filled FRP Tubes with Longitudinal Steel and FRP Rebar, 204
- Cole, D. J.**
see Cox, S. E., 859
- Cole, Ryan T.**
Passive Earth Pressure Mobilization during Cyclic Loading, 884
see Rollins, Kyle M., 883
- Cole, Thomas A.**
Fatigue Behavior and Nondestructive Evaluation of Full-Scale FRP Honeycomb Bridge Specimen, 145
- Coleman, Stephen**
see Melville, Bruce, 956
see Melville, Bruce, 988
- Collick, Amy S.**
Hydrological Evaluation of Septic Disposal Field Design in Sloping Terrains, 731
- Collins, Kevin R.**
see Kim, Juwhan, 1550
- Collop, Andrew C.**
see Krutcheva, Mariana R., 1312
- Comfort, Steve**
see Adam, Michael, 763
- Conachen, Mack**
see Bank, Lawrence C., 208
- Conboy, Thomas**
see Wan, Yongshan, 1835
- Conner, Stewart**
Influence of Parapets and Aspect Ratio on Live-Load Distribution, 123
- Connor, Robert J.**
Consistent Approach to Calculating Stresses for Fatigue Design of Welded Rib-to-Web Connections in Steel Orthotropic Bridge Decks, 154
Identifying Effective and Ineffective Retrofits for Distortion Fatigue Cracking in Steel Bridges Using Field Instrumentation, 178
- Conrath, Edward J., P.E.**
see Norville, H. Scott, P.E., 97
- Consoli, Nilo Cesar**
see Casagrande, Michéle Dal Toé, 918
- Consoli, Simona**
Estimation of Evapotranspiration of Different-Sized Navel-Orange Tree Orchards using Energy Balance, 1164
Measurement of Light Interception by Navel Orange Orchard Canopies: Case Study of Lindsay, California, 1165
- Constantinescu, Andrei**
see Lecampion, Brice, 33
- Constantinescu, S. G.**
see Tokay, T. E., 1062
- Constantinou, Michael C.**
see Paviou, Eleni, 1547
- Conte, Enrico**
Plane Strain and Axially Symmetric Consolidation in Unsaturated Soils, 24
- Coop, Matthew Richard**
see Casagrande, Michéle Dal Toé, 918
- Cooper, Charles M.**
see Chao, Xiaobo, 753
- Cooper, Curtis A.**
see Wittler, James M., 1213
- Cooper, R.W.**
@Rshall Space Flight Center (MSFC), in Huntsville, Alabama.
see Bodiford, Melanie P., 2011
- Corapcioglu, M. Yavuz**
see Durmusoglu, Ertan, 39
- Corinaldesi, Valeria**
Behavior of Beam-Column Joints made of Sustainable Concrete under Cyclic Loading, 1336
- Cornejo, Camilo**
Irrigation Potential of the TRASVASE System (Santa Elena Peninsula, Guayas, Ecuador), 1215
- Cornier, S.**
see Ioualalen, M., 1870
- Correia, João Pedro Ramôa Ribeiro**
New Methodology: Permit Checking of Vehicular Overloads, 131
- Cort, Todd L.**
Biotreatment of Surfactant Flush Wastewater from Wood Treatment Soil, 595
- Corte, Gaetano Della**
Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study, 1494
Seismic Upgrading of RC Buildings by FRP: Full-Scale Tests of a Real Structure, 1337
see Landolfo, Raffaele, 1495
- Costa, Dayana B.**
Benchmarking Initiatives in the Construction Industry: Lessons Learned and Improvement Opportunities, 1255
- Costello, Seósamh B.**
see Ortiz-García, José J., 1678
- Cottrell, David S.**
Contractor Process Improvement for Enhancing Construction Productivity, 307
- Coulbaly, Kapo M.**
Transport of Edible Oil Emulsions in Clayey Sands: One-Dimensional Column Results and Model Development, 1095
see Jung, Yong, 1096
- Coulbaly, Paulin**
see Khan, Mohammad Sajjad, 1091
- Cousin, Patrice**
see Debaiky, Ahmed S., 226
- Cousot, P.**
see Chanson, H., 960
- Couto, A.**
see Vidal, P., 542

- Cova, Thomas J.
see Kim, Tae H., 1922
- Cowie, Iain
see Newell, Charles J., P.E., 672
- Cox, Daniel T.
see Suh, Kyung-Duck, 1863
- Cox, Robert F.
 Proposed Subcontractor-Based Employee Motivational Model, 303
- Cox, S. E.
 Installation of Horizontal Wells in Landfilled Waste using Directional Drilling, 859
- Crandell, Jay H., P.E., ed.
 Residential Building Loads: Review and Roadmap for the Future, 2083
- Croley, Thomas E., II
 Watershed Surface and Subsurface Spatial Intraflows Model, 1071
- Croll, James G. A.
 Design Analysis for Buckling of Tanks and Silos, 1443
- Cross, Brad, ed.
 Structures Congress 2006: Structural Engineering and Public Safety, 2092
- Crowder, Mark L.
see Vijayaraghavan, Krishna, 680
- Cruise, J. F.
see Musleh, F. A., 948
- Cruz, Paulo J. S.
see Neves, Luís A. C., 1537
- Csik, Andras
see Szilagyi, Jozsef, 1097
- Cullum, R. F.
see Fox, G. A., 1133
- Culver, Teresa B.
see Bartelt-Hunt, Shannon L., 686
- Cumming, Lydia
see Lyons, Terrence, 639
- Cunniff, Dave
see Johnson, Billy E., 1960
- Cunningham, P. R.
see Schwingshackl, C. W., 74
- Cussler, Edward L.
see Shimotori, Tsutomu, 690
- Cuthbertson, Alan J. S.
 Model Study of the Influence of Submerged Tidal Barriers on Estuarine Mixing and Exchange Processes, 1034
- Cutter, A. Gillian
see McCuen, Richard H., 1132
- da Porto, F.
see Gasparini, D. A., 1480
- da Silva, Ana Maria Ferreira
 Variation of Flow Pattern with Sinuosity in Sine-Generated Meandering Streams, 1031
- da Silva, Luís Simões
see Coelho, Ana M. Girã, 1530
- Dagher, Habib, ed.
 Reliability-Based Design of Utility Pole Structures, 2082
- Dagher, Habib J.
see Cassidy, Eric D., 1453
- Dai, H.
 Dynamic Behavior of Nonlinear Cable System. IV, 464
- Dai, Huichao
 Management and Construction of the Three Gorges Project, 349
- Dai, Wu-Jiao
see Chan, Wai-Shan, 1656
- Daigle, Renaud
see Lan, André, P.E., 1974
- Dainty, A. R. J.
see Soetanto, R., 316
- Dainty, Andrew R. J.
 Indirect Discrimination in Construction Organizations and the Impact on Women's Careers, 1250
- Daloğlu, Ayşe T.
see Durmaz, Mustafa, 1553
- Daly, Steven F.
 Frazil Ice Blockage of Water Intakes in the Great Lakes, 1011
- Damgaard, J. S.
 Guidelines for Pipeline On-Bottom Stability on Liquefied Noncohesive Seabeds, 1883
see Dunn, S. L., 1881
see Teh, T. C., 1878
- Damjanović
see Zhang, Zhanmin, 1706
- Damjanovic, Ivan
 Determination of Required Falling Weight Deflectometer Testing Frequency for Pavement Structural Evaluation at the Network Level, 1671
- Dandamudi, Manoj
see Bolton, James, 745
- Dandino, Nancy
see Haroon, Saif Abdullah, 1382
- Dandy, G. C.
 Multi-Objective Trade-Offs between Cost and Reliability in the Replacement of Water Mains, 1809
- Daniel, David E.
see Choi, Hangseok, 817
see Choi, Hangseok, 818
- Daniel, Janice
see Allen-Munley, Cheryl, P.E., 1716
- Daniel, Jo Sias, P.E.
 Use of an Infrared Joint Heater to Improve Longitudinal Joint Performance in Hot Mix Asphalt Pavements, 1380
- Dao, Hien V.
 Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology, 661

AUTHOR INDEX

De

- Daoud, A.
see Noumowé, A., 1349
- Dapp, Steven
see Mullins, Gray, 822
- Dare, M. P.
see Wu, Y.-F., 1306
- Dare, Peter
see Berber, Mustafa, 1664
- Dargahi, Bijan
Experimental Study and 3D Numerical Simulations for
a Free-Overflow Spillway, 1022
- Dargush, Gary F.
see Ahn, Il-Sang, 475
see Escobar-Sandoval, Edgard D., 1614
- Das, Animesh
see Agarwal, Pradeep Kumar, 1141
- Dasari, G. R.
see Chowdhury, B., 856
- Datta, Bithin
see Singh, Raj Mohan, 1081
- Datta, T. K.
see Bhardwaj, M. K., 1519
see Rao, M. M., 252
- Davalos, J. F.
see Salim, H. A., 225
- Davalos, Julio F.
Fracture Mechanics Method for Mode-I Interface Eval-
uation of FRP Bonded to Concrete Substrates, 1346
see Chen, Yi, 216
- Davids, William G.
see Cassidy, Eric D., 1453
- Davidson, J. W.
Adjusting Nodal Demands in SCADA Constrained
Real-Time Water Distribution Network Models, 942
- Davidson, Rachel A.
Optimization of Investments in Natural Gas Distribu-
tion Networks, 425
- Davidson, Richard R.
see Filz, George M., 4
- Daviero, Gregory J.
Marine Wastewater Discharges from Multiport
Diffusers. III: Stratified Stationary Water, 971
see Tian, Xiaodong, 972
- Davies, Peter A.
see Cuthbertson, Alan J. S., 1034
- Davis, Atwood F.
see Grubb, Dennis G., 831
- Davis, Gary
see Spielholz, Peregrin, 393
- Davis, Jeffrey L.
see Hwang, Sangchul, 610
see Wani, Altaf H., 1948
- Davis, Jennifer B.
see Eckstrom, Richard L., 85
- Davis, Michael, P.E., ed.
Cold Regions Engineering 2006 — Current Practices in
Cold Regions Engineering, 2056
- Davister, M. D.
The Most Degrading Postbuckling Mode of Pin-Jointed
Structures, 513
- Dawe, J. L.
Experimental Study of Offset HSS Connections, 1511
- Dawe, John L.
Small-Scale Test Behavior of Cold-Formed Steel Roof
Trusses, 1499
see Wood, James V., 1500
- Dawsey, Wesley J.
Bayesian Belief Networks to Integrate Monitoring Evi-
dence of Water Distribution System Contamination,
1825
- Day, Laurence
see Collick, Amy S., 731
- De Cesare, Giovanni
Circulation in Stratified Lakes due to Flood-Induced
Turbidity Currents, 754
- De Girolamo, Paolo
see Panizzo, Andrea, 1872
- de Groot, M. B.
Liquefaction Phenomena underneath Marine Gravity
Structures Subjected to Wave Loads, 1885
Physics of Liquefaction Phenomena around Marine
Structures, 1877
see Kudella, M., 1884
- de Kreuk, Merle K.
Formation of Aerobic Granules with Domestic Sewage,
677
- de la Cruz, Elisa
see de la Cruz, M. Pilar, P.E., 372
- de la Cruz, M. Pilar, P.E.
Downside Risks in Construction Projects Developed by
the Civil Service: The Case of Spain, 372
- De Lorenzis, L.
see Teng, J. G., 198
- de Mendonca, Marcos Barreto
Column Test Studies of Ochre Biofilm Formation in
Geotextile Filters, 896
- de Neufville, Richard
Real Options by Spreadsheet: Parking Garage Case
Example, 1147
- de Oliveira e Sousa, José Luiz Antunes
Determining the Tensile Stress-Crack Opening Curve
of Concrete by Inverse Analysis, 449
- De Roeck, Guido
see Unger, Jörg F., 1606
- de Sanctis, Luca
Bearing Capacity of Piles Rafts on Soft Clay Soils, 927
- De Silva, Dakshina G.
Catastrophe-Induced Destruction and Reconstruction,
1924
- De Silva, I. P. D.
Turbulence Dissipation in Stirred Jars, 567

- de Sousa Coutinho, António G. F.
Data Reduction of Horizontal Load Full-Scale Tests on Bored Concrete Piles and Pile Groups, 847
- de Vries, Tonny T.
Irrigation Scheduling with Travel Times, 1188
- Dean, Peter K.
see Johnston, Adrienne R., 1579
- Debaiky, Ahmed S.
Residual Tensile Properties of GFRP Reinforcing Bars after Loading in Severe Environments, 226
- Dehella, David Col
Construction Delivery Systems: A Comparative Analysis of Their Performance within School Districts, 399
- DeBoer, Darrell W., P.E.
Combination Subsurface Irrigation and Drainage Systems in North-Central South Dakota, 1169
- Dechert, Tom
see Brooks, Erin S., 1113
- Deeks, A. J.
see Doherty, J. P., 16
- Deeks, Andrew J.
see Zanardo, Giovanna, 162
- Deenadayalu, C.
see Sharda, J., 62
- Defne, Z.
see Göğüş, M., 1193
- DeGroot, Don J., ed.
GeoCongress 2006: Geotechnical Engineering in the Information Technology Age, 2068
- Deierlein, G. G.
see Chi, W.-M., 1455
- see* Kanvinde, A. M., 1627
- Deigaard, Rolf
Breaking Antidunes: Cyclic Behavior due to Hysteresis, 993
- DeJong, J. T.
see Frost, J. D., 13
- DeJong, Jason T.
Microbially Induced Cementation to Control Sand Response to Undrained Shear, 905
- see* DeGroot, Don J., ed., 2068
- see* Ostendorf, David W., 761
- del Caño, Alfredo, P.E.
see de la Cruz, M. Pilar, P.E., 372
- Delatte, Norbert
see Pearson, Cynthia, 1373
- Delatte, Norbert J., ed.
see Bosela, Paul A., ed., 2066
- Delebarre, Arnaud
see Yazbek, Waël, 648
- Delfosse-Ribay, Estelle
Factors Affecting the Creep Behavior of Grouted Sand, 823
- Demian, Peter
Methodology for Usability Evaluation of Corporate Memory Design Reuse Systems, 274
- Demirel, Hüseyin
see Ustun, Aydin, 1643
- Demirkan, M. Melih
see Aydılek, Ahmet H., 869
- Demissie, Misganaw
see Markus, Momcilo, 1108
- Dempsey, Dwight D.
Wood Members Strengthened with Mechanically Fastened FRP Strips, 228
- Dempsey, Kevin M.
Dynamic Uplift Scenarios for Floating Ice, 182
- Den, Walter
Electrocoagulation of Silica Nanoparticles in Wafer Polishing Wastewater by a Multichannel Flow Reactor: A Kinetic Study, 772
- Denairé, Emmanuel
see Habel, Katrin, 1615
- Deng, An
Metallic Characterization of Foundry By-Products per Waste Streams and Leaching Protocols, 663
- Deng, Xiaolin
Evaluating an Electrokinetically Driven Extraction Method for Measuring Heavy Metal Soil Contamination, 641
- Deng, Yong
see Toutanji, Houssam, 1264
- Denham, S. L.
see Rafiq, M. Y., 254
- Denoon, Roy O.
see Burton, Melissa D., 1468
- Dent, Shawn
see Wright, Leonard T., 1154
- Deo, M. C.
see Namekar, Shailesh, 1894
- Deodatis, George
see Koutsourelakis, Phaedon S., 496
- der Kiureghian, A.
see Moss, R. E. S., 873
- Der Kiureghian, Armen
see Cetin, K. Onder, 10
- see* Royset, Johannes O., 445
- see* Song, Junho, 441
- see* Song, Junho, 495
- Derome, Dominique
Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies, 90
- Desai, Chandra S.
Parameter Optimization and Sensitivity Analysis for Disturbed State Constitutive Model, 19
- see* Pradhan, Shashank K., 799
- Descantes, Yannick
Automated Measurement of Railway Ballast Angularity, 1331

AUTHOR INDEX

Diwekar

- Deschamps, Rick
Limitations in the Back-Analysis of Strength from Failures, 828
- DeSemp, Daniel, P.E.
Phoenix Rises, 1999
- Deshchowgule, A. D.
see Bapat, J. D., 1310
- Deshmukh, S.
see Moujaes, S. F., 426
- Desmarais, Guylaine
see Derome, Dominique, 90
- DesRoches, Reginald, ed.
Hurricane Katrina: Performance of Transportation Systems, 2074
- Dessouky, Maged M.
see Kargahi, Mohsen, 1622
- Dessouky, Samer
Finite-Element Analysis of Hot Mix Asphalt Microstructure using Effective Local Material Properties and Strain Gradient Elasticity, 451
- Dettmers, Dana L.
Remediation of a TCE Plume using a Three-Component Strategy, 1952
- Devenport, Jenny N.
see Hinze, Jimmie, 320
- DeVilbiss, Carl E., P.E.
Measurement Design Is an Opportunity to Learn, 1917
- Devlin, J. F.
see Garvin, N. L., 776
- DeWolf, John T.
see Lauzon, Robert G., 163
- DeWolf, John T., P.E.
see Chakraborty, Santanu, 179
- Dey, Partha Pratim
Lateral Distribution of Mixed Traffic on Two-Lane Roads, 1728
- Speed Distribution Curves under Mixed Traffic Conditions, 1713
- Dey, Subhasish
Control of Scour at Vertical Circular Piles under Waves and Current, 959
- Scour Downstream of an Apron Due to Submerged Horizontal Jets, 957
- Dezi, Luigino
Effective Slab Width in Prestressed Twin-Girder Composite Decks, 1573
- Dham, Rajesh
see Johnson, Michael C., 1006
- Dhar, Ashutosh S.
Evaluation of Local Bending in Profile-Wall Polyethylene Pipes, 1762
- Dhawan, A. K.
see Varadarajan, A., 35
- Dhingra, S. L.
see Muralidhar, Bindhu, 1715
- see Shrivastava, Prabhat, 1718
- see Verma, Ashish, 1788
- di Scalea, Francesco Lanza
see Matta, Fabio, 214
- Dibert-DeYoung, Amber
see Abudayyeh, Osama, P.E., 246
- DiCaprio, Ralph
see Lakota, Gregory J., P.E., 2037
- Diefenderfer, Brian K.
Model to Predict Pavement Temperature Profile: Development and Validation, 1679
- Diefenderfer, Stacey D.
see Diefenderfer, Brian K., 1679
- Diekmann, James
see Cho, Young-Jun, 1422
- Dietz, Matthew S.
Postpeak Strength of Interfaces in a Stress-Dilatancy Framework, 914
- Dikmen, Irem
see Ozorhon, Beliz, 381
- Dilek, Ufuk, P.E.
Nondestructive and Laboratory Evaluation of Damage Gradients in Concrete Structure Exposed to Cryogenic Temperatures, 1368
- Dillard, David A.
see Plaut, Raymond H., 527
- DiLorenzo, Joseph L.
see Litwack, Howard S., 642
- Dilthey, U.
see Schleser, M., 1338
- Dimentberg, M.
Short-Term Structural Instability under Random Dynamic Loads, 568
- Ding, Duowen
Nonlinear Stress-Strain Relationship of Soil Reinforced with Flexible Geofibers, 851
- Ding, Xiao-Li
see Chan, Wai-Shan, 1656
- Ding, Yan
Development and Validation of a Quasi-Three-Dimensional Coastal Area Morphological Model, 1900
- Optimal Control of Open-Channel Flow using Adjoint Sensitivity Analysis, 1055
- Dinwoodie, John
see Fan, Mizi, 518
- Diodato, Nazzareno
Spatial Uncertainty Modeling of Climate Processes for Extreme Hydrogeomorphological Events Hazard Monitoring, 758
- Diogo, A. Freire
Optimal Layout of Sewer Systems: A Deterministic versus a Stochastic Model, 1018
- Diplas, Panayiotis
see Almedeij, Jaber H., 1051
- Diwekar, U.
see Shastri, Y., 1820

- Dixon, D.
see Guo, R., 778
- Dixon, Eric R., P.E.
see Noble, Richard M., P.E., 1997
- Djeran-Maigre, Irini
see Delfosse-Ribay, Estelle, 823
- Doby, Troy A.
see Kumar, Sujay V., 1840
- Dodds, Jake
see Cho, Gye-Chun, 832
- Dodds, Robert H., Jr.
see Walters, Matthew C., 435
- D'Odorico, Paolo
see Brandimarte, Luigia, 980
- Doe, Brian E.
see Foutch, Douglas A., 165
- Doeing, Brian J.
see Hu, Henry H., 1080
- Doering, Jay, P.E.
see Clark, Shawn, 941
- Dog, Sevgi Zeynep
 Determining Attribute Weights in a CBR Model for Early Cost Prediction of Structural Systems, 396
- Dogan, Vedat
 Nonlinear Response of Double-Wall Cylindrical Shell Vibrations under Random Excitation, 63
- Dogruer, O. Y.
see Tufekci, E., 494
- Dogrul, E. C.
see Kavvas, M. L., 1099
- Dogrul, Emin C., P.E.
 Flow Computation and Mass Balance in Galerkin Finite-Element Groundwater Models, 1054
- Doh, Young S.
see Kim, Kwang W., 1324
- Doherty, J. P.
 Stiffness of a Flexible Circular Footing Embedded in an Elastic Half-Space, 16
- Doi, Yasuaki
see Hong, Chun-Beom, 1889
- Dominguez, Antonio
see Chinea, Reynaldo R., 1167
- Dong, S. L.
see Yu, T., 233
- Donnell, Eric T.
 Methodology to Develop Median Barrier Warrant Criteria, 1691
- Donnell, Eric T., P.E.
see Pietrucha, Martin T., P.E., 1758
- Donohoe, Stephen
 "Is That Not Horrific?" — or "You Have Been Warned!" *Burchell v. Bullard* and Implications for English Construction Law, 1428
- Dougherty, Mark
 Quantifying Long-Term NPS Pollutant Flux in an Urbanizing Watershed, 643
- Douglas, Ellen M.
 Probabilistic Behavior of Floods of Record in the United States, 1120
- Douglass, Robert D., P.E.
see Anderson, Lee L., Jr., P.E., 1915
- Doveh, Etti
see Gitelman, Victoria, 1668
- see* Gitelman, Victoria, 1668
- Dowding, C. H.
 Blast and Construction Vibration Monitoring and Control: Thirty-Five-Year Perspective, 1971
- Draper, Stephen E., ed.
 Sharing Water in Times of Scarcity: Guidelines and Procedures in the Development of Effective Agreements to Share Water Across Political Boundaries, 2085
- Drew, Derek S.
 Testing Vickery's Revenue Equivalence Theory in Construction Auctions, 330
- see* Shen, Li Yin, 384
- Drewes, Jörg E.
 Character of Organic Matter in Soil-Aquifer Treatment Systems, 748
- Drimer, Nitai
see Stiasnie, Michael, 1871
- Driver, Robert G.
 Shear Behavior of Corrugated Web Bridge Girders, 1457
- see* Abbas, Hassan H., 517
- see* Sause, Richard, 1543
- Drogué, Patrick
see Meunier, Nathalie, 660
- Droste, R. L.
see Shahriari, H., 587
- Drysdale, Robert
see Korany, Yasser, 209
- Drysdale, Robert G.
see El-Dakhkhni, Wael W., 1635
- Duan, Jennifer G.
 Lodging Velocity for an Emergent Aquatic Plant in Open Channels, 1032
- Duarte, Izabel C. D.
see Melo, André L. O., 1652
- Dubina, D.
see Fülöp, L. A., 1496
- Ducher, Jean, P.E.
see Kwasniewski, Leslaw, 1391
- Ducoste, Joel J.
see Bohrerova, Zuzana, 760
- Duerr, David, P.E.
 Pinned Connection Strength and Behavior, 1456
- Duffield, Colin F.
see Tang, Wenzhe, 310

AUTHOR INDEX

Ehrlich

- Dukes, Michael D., P.E.
Impact of Agriculture on Water Quality in the North Carolina Middle Coastal Plain, 1191
- Dukuze, A.
see Dawe, J. L., 1511
- Duncan, J. Michael
see Brandon, Thomas L., 802
- Dundu, M.
Plastic and Lateral-Torsional Buckling Behavior of Single Cold-Formed Channels Connected Back-to-Back, 1559
- Dunn, S. L.
Numerical Modeling of Wave-Induced Liquefaction around Pipelines, 1881
- Dunston, Phillip S.
see Wang, Xiangyu, 280
- Duran, Juan, P.E.
see Yates, J. K., 1436
- Durango-Cohen, Pablo L.
Using Advanced Inspection Technologies to Support Investments in Maintenance and Repair of Transportation Infrastructure Facilities, 1669
- Durmaz, Mustafa
Frequency Analysis of Ground Snow Data and Production of the Snow Load Map using Geographic Information System for the Eastern Black Sea Region of Turkey, 1553
- Durmugoglu, Ertan
Modeling of Settlement in Saturated and Unsaturated Municipal Landfills, 39
- Dusenberry, Donald O., P.E.
Practical Means for Energy-Based Analyses of Disproportionate Collapse Potential, 1400
- Duveau, G.
see Shao, J. F., 23
- Dye, Jerry
see Fischer, Paul, P.E., 2043
- Dyer, Tom
see Newson, Tim, 792
- Dymond, Randel L.
see Dougherty, Mark, 643
- Dzeng, Ren-Jye
Identifying a Design Management Package to Support Concurrent Design in Building Wafer Fabrication Facilities, 348
- Dzombak, David A.
see McDonough, Kathleen M., 676
- Eamon, Christopher D.
see Thompson, Michel D., 1626
- Earls, C. J.
see Accord, N. B., 223
see Aktas, M., 1544
see Chavel, B. W., 112
see Chavel, B. W., 113
- Earls, Christopher J. Earls
see Moses, Jonathan P., 143
- Easa, Said M.
Modeling Driver Visual Demand on Three-Dimensional Highway Alignments, 1700
- Eason, T. G.
see Sagüés, A. A., 161
- East, E. William
Multiproject Planning and Resource Controls for Facility Management, 416
- Easterbrook, D. J.
see Rafiq, M. Y., 254
see Zhou, G. C., 276
- Easterling, W. Samuel
see Nuttayasukul, Nuthaporn, 1501
- Easton, Zachary M.
see Collick, Amy S., 731
- Ebead, Usama
see Aly, Ragi, 217
- Ebead, Usama A. A.
see Zhang, Burong, 29
- Ebeling, Robert M.
see Arroyo-Caraballo, José R., 1150
- Eberhardsteiner, Josef
see Pichler, Bernhard, 913
- Ebewele, R. O.
see Aisien, F. A., 723
- Echegoyen, Luis A.
see Meeroff, Daniel E., 683
- Eckstrom, Richard L.
Adoption of the International Residential Code in a High Natural Hazards Region — An Overview, 85
- Edelmann, Jennifer L.
see Sanayei, Masoud, 172
- Edil, Tuncer B.
Stabilizing Soft Fine-Grained Soils with Fly Ash, 1291
see Aydılek, Ahmet H., 2
- Edkins, Andrew J.
Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery, 1415
- Edwards, Marc
see Parks, Jeffrey L., 653
see Scardina, Paolo, 664
- Edwini-Bonsu, S.
Dynamics of Air Flow in Sewer Conduit Headspace, 1009
- Modeling Ventilation Phenomenon in Sanitary Sewer Systems: A System Theoretic Approach, 1008
- Egbert, Jeffery J.
see Rollins, Kyle M., 894
- Egbert, Jeffrey J.
see Rollins, Kyle M., 895
- Eheart, J. Wayland
see An, Hyunhee, 1841
- Ehrlich, Maurício
see de Mendonca, Marcos Barreto, 896

- Eisinger, D. S.**
Collecting Driving Data to Support Mobile Source Emissions Estimation, 1756
- Ekbote, Shailesh**
Porochemoelastic Solution for an Inclined Borehole in a Transversely Isotropic Formation, 510
- Ekenel, Mahmut**
Flexural Fatigue Behavior of Reinforced Concrete Beams Strengthened with FRP Fabric and Precured Laminate Systems, 232
- El Maaddawy, Tamer**
Effect of Fiber-Reinforced Polymer Wraps on Corrosion Activity and Concrete Cracking in Chloride-Contaminated Concrete Cylinders, 202
- el Mezaini, Nasreddin**
Effects of Soil-Structure Interaction on the Analysis of Cylindrical Tanks, 1755
- El Sawwaf, Mostafa**
Lateral Resistance of Single Pile Located near Geosynthetic Reinforced Slope, 901
- El Sherbiny, Ahmed H.**
Model for Environmental Risk Assessment of Tourism Project Construction on the Egyptian Red Sea Coast, 729
- El Wardani, Marwa A.**
Comparing Procurement Methods for Design-Build Projects, 311
- Ela, Wendell P.**
see Miller, Jennifer H., 732
- Elazouni, Ashraf M.**
Classifying Construction Contractors Using Unsupervised-Learning Neural Networks, 411
- El-Borgi, S.**
see Baccouch, M., 72
- El-Dakhkhni, Wael**
see Ibrahim, Sherif A., 1574
- El-Dakhkhni, Wael W.**
Multilaminar Macromodel for Concrete Masonry: Formulation and Verification, 1635
see Ibrahim, Sherif A., 1575
- El-Diraby, T. E.**
see Zhang, J., 323
- El-Diraby, Tamer E.**
Web-Services Environment for Collaborative Management of Product Life-Cycle Costs, 318
- Elefteriadou, Lily**
see Fang, Fang Clara, 1732
see Pietrucha, Martin T., P.E., 1758
- Elgaaly, Mohamed**
see Ibrahim, Sherif A., 1574
see Ibrahim, Sherif A., 1575
- El-Hamalawi, Ashraf**
see Owolabi, Abidemi, 257
- Elishakoff, Isaac**
Four Alternative Definitions of the Fuzzy Safety Factor, 83
- Elkaim, Gabriel H.**
see Gebre-Egziabher, Demoz, 68
- Ellegaard, Peter**
Finite-Element Modeling of Timber Joints with Punched Metal Plate Fasteners, 1479
- Ellingwood, Bruce R.**
see Zureick, Abdul-Hamid, 1569
- Ellingwood, Bruce R., P.E.**
Mitigating Risk from Abnormal Loads and Progressive Collapse, 1397
- Elliott, William J.**
see Brooks, Erin S., 1113
- Elliott, Allan**
see Mahmood, Talat, P.E., 715
- Ellis, Ralph D., Jr.**
Measuring Project Level Productivity on Transportation Projects, 319
- Elmarakbi, Ahmed**
Crashworthiness of Motor Vehicle and Traffic Light Pole in Frontal Collisions, 1743
- El-Mashaleh, Mohammad**
Firm Performance and Information Technology Utilization in the Construction Industry, 338
- Elmisalami, Tarek**
Construction IT Decision Making Using Multiattribute Utility Theory for Use in a Laboratory Information Management System, 414
- El-Mowafy, A.**
Real-Time Determination of Orthometric Heights Accurate to the Centimeter Level using a Single GPS Receiver: Case Study, 1640
- Elnashai, Amr S.**
see Erberik, M. Altug, 1925
see Jeong, Seong-Hoon, 1585
- El-Ragaby, Amr**
see Benmokrane, Brahim, 126
- El-Rayes, Khaled**
see Hyari, Khalied, 331
see Hyari, Khalied, 1238
see Kandil, Amr, 337
see Kandil, Amr, 1252
see Khalafallah, Ahmed, 344
see Khalafallah, Ahmed, 1257
- El-Salakawy, Ehab**
see Benmokrane, Brahim, 126
- Elsayed, Mohamed A. K.**
see Tieleman, Henry W., 1551
- Elseifi, Mostafa**
see Loulizi, Amara, 1725
- Elseifi, Mostafa A.**
Viscoelastic Modeling and Field Validation of Flexible Pavements, 452
- Elshorbagy, Walid**
Hydrodynamic Characterization and Modeling of the Arabian Gulf, 1859
see Azam, Mir Hammadul, 1891
see Azam, Mir Hammadul, 1902

- Elsworth, Derek
Pore Pressure Response Following Undrained uCPT
Sounding in a Dilating Soil, 915
- El-Tahawy, Tarek
see da Silva, Ana Maria Ferreira, 1031
- El-Tawil, Sherif
see Chao, Shih-Ho, 1556
- El-Tawil, Sherif, P.E.
Vehicle Collision with Bridge Piers, 1
- Elton, David J., P.E.
*Soils Magic: Bringing Civil Engineering to the K-12
Classroom*, 1417
- El-Zein, Abbas
Laplace Boundary Element Model for the Thermoelas-
tic Consolidation of Multilayered Media, 25
Steady-State Diffusion — Advection by Exponential
Finite Elements, 55
- Emam, Emam B.
see Al-Deek, Haitham M., P.E., 282
- Empie, H. Jeff
see Campbell, Brian K., 726
- Emsley, Margaret W.
see Lowe, David J., 362
- Endreny, Theodore
see Black, Jessica, 1119
- Engel, R.
see Salem, O., 1980
- Engelhardt, M. O.
see Dandy, G. C., 1809
- Engelhardt, Michael D.
see Okazaki, Taichiro, 1557
see Okazaki, Taichiro, 1570
- England, Ellen C.
see Staudinger, Tiffany J., 1146
- Englehardt, James D.
see Meeroff, Daniel E., 683
- Enjily, Vahik
see Fan, Mizzi, 518
- Enomoto, Brian T.
see Newton, Craig M., 1384
- Epstein, Alan
see Yates, J. K., 1421
- Epstein, Howard I.
Virtual Experiments for Welded Structural Steel Con-
nections, 1983
- Erberik, M. Altug
Loss Estimation Analysis of Flat-Slab Structures, 1925
- Eremektar, F. Gulen
see McCue, Terrence Michael, P.E., 720
- Ergas, Sarina J.
Evaluation of Water Reuse Technologies for the Tex-
tile Industry, 618
- Ergas, Sarina J., P.E.
see Leshem, Ehud N., 619
- Ergen, Esin
see Akinci, Burcu, 401
- Erki, M.A.
see Wight, R. G., 151
- Ersoy, Ugur
see Canbay, Erdem, 1541
- Ertekin, R. C.
see Kim, J. W., 1886
- Esaki, Tetsuro
see Xie, Mowen, 839
- Escobar-Sandoval, Edgar D.
Concentrically Loaded Circular Steel Plates Bearing on
Plain Concrete, 1614
- Escoriaza, Sharon
see Abichou, Tarek, 607
- Eskandari-Ghadi, Morteza
see Xi, Yunping, 561
- Eskicioglu, C.
see Shahriari, H., 587
- Espinol, Ramon L.
see Cornejo, Camilo, 1215
- Espinoza, Felipe P.
Effects of Local Search Algorithms on Groundwater
Remediation Optimization using a Self-Adaptive
Hybrid Genetic Algorithm, 278
- Essary, Andrew
see Lakota, Gregory J., P.E., 2037
- Ettema, Robert
Similitude of Large-Scale Turbulence in Experiments
on Local Scour at Cylinders, 934
see Daly, Steven F., 1011
see Michell, Frank, 975
- Ettouney, Mohammed, P.E., ed.
Building Integration Solutions, 2053
Global System Considerations for Progressive Collapse
with Extensions to Other Natural and Man-Made
Hazards, 1406
- Evans, James W.
see Green, David W., 1261
- Evans, Jeffrey C.
see Henning, John T., 892
- Evans, R. O.
see Jia, Z., 1182
- Evans, Robert O., P.E.
see Dukes, Michael D., P.E., 1191
- Everett, Jess W., P.E.
Natural Attenuation Assessment using Mineral Data,
1968
- Evernden, M. C.
Characterization of Unistrut Connection Method with
Pultruded Fiber-Reinforced Polymer Channels, 1342
- Exadaktylos, G. E.
Freezing - Thawing Model for Soils and Rocks, 1286
- Ezeldin, A. Samer
Neural Networks for Estimating the Productivity of
Concreting Activities, 353

- Fabbrocino, G.
see Prota, A., 210
- Fafitis, Apostolos
see Fuller, Barry J., 2015
- Fakhimi, A.
 Shear Banding in Sandstone: Physical and Numerical Studies, 31
- Falcon, Marco A.
see Sarmiento, Oscar A., 949
- Fam, Amir
 Composite T-Beams using Reduced-Scale Rectangular FRP Tubes and Concrete Slabs, 205
see Cole, Britton, 204
see Mandal, Siddhartha, 1483
- Fan, Henry S. L.
see Mak, Chin Long, 1696
- Fan, Mizi
 Effect of Test Piece Size on Rheological Behavior of Wood Composites, 518
- Fan, Su-Ling
 Object-Oriented Scheduling for Repetitive Projects with Soft Logics, 291
- Fan, Wei
 Optimal Transit Route Network Design Problem with Variable Transit Demand: Genetic Algorithm Approach, 1667
 Using a Simulated Annealing Algorithm to Solve the Transit Route Network Design Problem, 1676
- Fan, Yu-Lin
see Mo, Y. L., 136
- Fang, Dongping
 Safety Climate in Construction Industry: A Case Study in Hong Kong, 345
- Fang, Fang Clara
 Development of an Optimization Methodology for Adaptive Traffic Sign Control at Diamond Interchanges., 1732
- Fang, Hongwei
 Diagonal Cartesian Method for the Numerical Simulation of Flow and Suspended Sediment Transport over Complex Boundaries, 1053
- Fang, Qian
 MS2 Inactivation by Chloride-Assisted Electrochemical Disinfection, 584
- Fang, Sheng-En
see Ren, Wei-Xin, 1633
- Fang, Shenguang
see Huai, Wenxin, 974
- Fang, Shiyue
see Blatchley, Ernest R., III, 742
- Fang, Sunny Ye
see Juang, C. Hsein, 809
- Fang, Xing
see Cleveland, Theodore G., 1218
- Farjier-Gabaldón, Luis B.
 Behavior of Reinforced Concrete Column — Steel Beam Roof Level T-Connections under Displacement Reversals, 1540
- Farhey, Daniel N.
see Zoghi, Manoochehr, 1390
- Faria, José A.
see Gabriel, Steven A., 1148
- Farrow, William C., III
see Higgins, Christopher, P.E., 173
- Faruque, M. A. A.
 Clear Water Local Scour by Submerged Three-Dimensional Wall Jets: Effect of Tailwater Depth, 989
- Farzaneh, Mohamadreza
 Procedures for Calibrating TRANSYT Platoon Dispersion Model, 1722
see Rakha, Hesham, 1723
- Fashir, H.
see El-Mowafy, A., 1640
- Fedors, Randall W.
see Woolhiser, David A., 1083
- Felippa, Carlos A.
 Construction of Customized Mass-Stiffness Pairs using Templates, 80
- Felt, Deborah R.
see Hwang, Sangchul, 610
- Feng, Cheng-Min
see Lin, Jen-Jia, 1773
- Feng, Wenguo
 Sulfur Impregnation on Activated Carbon Fibers through H₂S Oxidation for Vapor Phase Mercury Removal, 615
- Feng, Xue
see Feng, Wenguo, 615
- Fenton, Gordon A.
see Griffiths, D. V., 54
- Fenves, Gregory L.
see Scott, Michael H., 1462
- Fernando, E. G.
see Oh, Jeong-Ho, 1711
- Ferracuti, Barbara
see Elishakoff, Isaac, 83
- Ferreira, Rui Miguel Lage
see Leal, João Gouveia Aparício Bento, 938
- Ferrer, J.
see Chanona, J., 747
- Ferrero, Víctor
see Rinaldi, Victor, 784
- Ferro, Vito
 Flood Frequency Analysis for Sicily, Italy, 1082
- Feyen, Jan
see Rocha, David, 1211
- Fickenscher, Peter
see Shamir, Eylon, 1111

AUTHOR INDEX

Fox

- Fidell, James
see Barnes, Richard, 239
- Field, Richard, ed.
BMP Technology in Urban Watersheds: Current and Future Directions, 2052
- Figuerola, J. Ludwig
see Sargand, Shad M., 1746
- Filho, Américo Campos
see Barbieri, Ranier Adonis, 1442
- Filiatrault, André
Experimental Stiffness and Seismic Response of Pal-let-Type Steel Storage Rack Connectors, 1987
Seismic Response of High Voltage Electrical Trans-former-Bushing Systems, 1467
- Filz, George M.
Stability of Long Trenches in Sand Supported by Ben-tonite-Water Slurry, 4
- Fine, Pinchas
see Graber, Ellen R., 1282
- Finke, John, ed.
see Cross, Brad, ed., 2092
- Finžgar, Neža
Advanced Oxidation for Treatment of Aqueous
Extracts from EDTA Extraction of Pb and Zn Con-taminated Soil, 740
- Fiorino, Luigi
see Corte, Gaetano Della, 1494
see Landolfo, Raffaele, 1495
- Fiorotto, Virgilio
see Manso, Pedro A., 3
- Fischer, Paul, P.E.
Quenching Thornton's Thirst, 2043
- Fiser, Zdenek
see Vondrak, Jiri, 1650
- Fisher, John W.
see Connor, Robert J., 154
see Connor, Robert J., 178
see Sause, Richard, 1543
- Fisher, Timothy S. R.
Treatment of Acid Rock Drainage in a Meromictic
Mine Pit Lake, 640
- Fiske, Michael R. @roject Chief Technologist
see Bodiford, Melanie P., 2011
see Toutanji, Houssam A., P.E., 2010
- Fityus, Stephen
see Huang, Wenxiong, 45
- Fitzgerald, Robert W., P.E.
see Johann, Matthew A., 1369
- Fitzpatrick, Kay, P.E.
Predicting Speeds in an Urban Right-Turn Lane, 1684
- Flavell, Eric L., P.E.
Civil Engineering: A Changing Profession, 1918
- Fleetham, Charles
Leveraging Personality for Business Success, 1921
- Fleetwood, Dennis
see McLean, Amanda, 1945
- Fleischman, Robert B.
Optimum Arm Geometry for Ductile Modular Con-nectors, 1510
- Fletcher, H. R.
Modeling the Sorption of Fluoride onto Alumina, 608
- Flores, Paul
see Scawthorn, Charles, 1929
- Flowers, Stephen G., P.E.
see Flavell, Eric L., P.E., 1918
- Foged, Nathan
see Garcia, Luis A., 1227
- Foliente, Greg C.
see Wang, Chi-hsiang, 1513
- Fong, Patrick Sik-wah
Exploratory Study of Knowledge Sharing in Contract-ing Companies: A Sociotechnical Perspective, 380
- Fonseca, Priscilla
see El-Tawil, Sherif, P.E., 1
- Foong, Kok Wai
see Chin, Hoong Chor, 1785
- Foray, P.
Fluid-Soil-Structure Interaction in Liquefaction around
a Cyclically Moving Cylinder, 1882
see Damgaard, J. S., 1883
see de Groot, M. B., 1877
- Formoso, Carlos T.
see Costa, Dayana B., 1255
- Forsberg, C. W.
Sustainability and Economics of the Advanced High-Temperature Reactor, 432
- Fortner, Brian
Landmark Reinvented, 2007
Short Circuit, 2041
- Fortney, Patrick J.
Grace under Pressure, 2013
- Fosse, Yann
see Descantes, Yannick, 1331
- Fouad, Fouad H.
see Sisiopiku, Virginia P., 663
- Foutch, Douglas A.
Investigation of Longitudinal Forces in a Concrete
Railroad Trestle, 165
see Lee, Kihak, 1583
- Fox, G. A.
Sediment Transport Model for Seepage Erosion of
Stream Bank Sediment, 1133
- Fox, James F.
see Krou, Jean F., 733
- Fox, Patrick J.
see Qiu, Tong, 523
- Fox, Peter
see Park, Heekyung, 762

- Foye, K. C.**
Assessment of Variable Uncertainties for Reliability-Based Design of Foundations, 888
Resistance Factors for Use in Shallow Foundation LRFD, 889
- Fragiacomo, Massimo**
Long-Term Behavior of Timber-Concrete Composite Beams. I: Finite Element Modeling and Validation, 1440
Long-Term Behavior of Timber-Concrete Composite Beams. II: Numerical Analysis and Simplified Evaluation, 1441
- Franchin, Paolo**
see Lupoi, Giorgio, 473
- Francisca, Franco M.**
see Rinaldi, Victor A., 704
- Frangopol, Dan M.**
see Biondini, Fabio, 1521
see Liu, Min, 1620
see Liu, Ming, 167
see Neves, Luis A. C., 1537
see Neves, Luis A. C., 1619
see Sakano, Masahiro, 171
- Frank, Karl H.**
see Chung, Hsin-Yang, 134
- Frantzis, Panagiotis**
Effect of Early-Age Temperature Rise on the Stability of Rapid-Hardening Cement Fiber Composites, 1325
- Fratta, Dante, ed.**
see Puppala, Anand J., ed., 2087
- Fredette, Thomas**
see Lyons, Terrence, 639
- Fredlund, Delwyn G.**
Unsaturated Soil Mechanics in Engineering Practice, 807
see Miller, Gerald A., ed., 2096
- Fredsøe, Jørgen**
see Dey, Subhasish, 959
see Sumer, B. Mutlu, 1879
see Sumer, B. Mutlu, 1880
- French, Catherine**
see Zhao, Jian, 1584
- French, Richard**
see Duan, Jennifer G., 1032
- Frevert, D. K.**
see Salas, J. D., 1177
- Frevert, Donald**
Watershed and River Systems Management Program: Overview of Capabilities, 1174
- Frevert, Donald K.**
see Singh, Vijay P., 1175
- Frey, Aimee**
see Cox, Robert F., 303
- Fries, J. Stephen**
Attachment of Fecal Indicator Bacteria to Particles in the Neuse River Estuary, N.C., 736
- Frigione, M.**
Environmental Effects on Epoxy Adhesives Employed for Restoration of Historical Buildings, 1344
- Fritsen, Chris**
see Kish, Suzanne M., 739
- Fritz, Wolfgang U.**
see Merry, Scott M., 829
- Fritzges, Michael B.**
see DeJong, Jason T., 905
- Fröhner, A.**
see Wöhling, Th., 1206
- Fromion, V.**
see Litrico, X., 1204
see Litrico, X., 1205
- Frost, David, ed.**
see DeGroot, Don J., ed., 2068
- Frost, J. D.**
Analytical Investigation of Friction Sleeve Length Effects on Stratigraphic Interpretation, 13
- Fruchter, Renate**
see Demian, Peter, 274
- Fu, Chung C.**
see Zhao, Tong, 350
- Fu, Gongkang**
see Mu, Bin, 196
see Wu, Hwai-Chung, 147
- Fu, Hai-Feng**
see Xing, Hao-Feng, 849
- Fu, Jin-Cheng**
see Hsu, Ming-Hsi, 992
- Fujino, Yozo**
see Rittumrongkul, Sopon, 1469
see Xia, Yong, 463
- Fukuchi, Tsugio**
Hydraulic Elements Chart for Pipe Flow using New Definition of Hydraulic Radius, 1030
- Fukuoka, Hiroshi**
see Gratchev, Ivan B., 790
- Fuller, Barry J.**
The Paper Alternative, 2015
- Fülöp, L. A.**
Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels, 1496
- Fulp, Terrance**
see Frevert, Donald, 1174
- Fulp, Terrance J.**
see Carron, John C., 1176
- Fulp, Terry J.**
see Prairie, James R., 1110
- Fung, Ivan W. H.**
see Lo, Tommy Y., 352
- Fung, Tat Ching**
see Nguyen, Ngoc T. B., 1600

AUTHOR INDEX

Gates

Furman, A.

Modified Kostiaikov Infiltration Function: Accounting for Initial and Boundary Constraints, 1230

Furuta, Hitoshi

see Sakano, Masahiro, 171

Fwa, T. F.

Transverse Pavement Grooving against Hydroplaning. II: Design, 1710

see Ong, G. P., 1709

Fyfe, J.

see Shang, J. Q., P.E., 1277

Gabr, M. A.

see Warren, K. A., 880

Gabriel, Steven A.

Contingency Planning in Project Selection using Multi-objective Optimization and Chance Constraints, 1148

Statistical Modeling to Forecast Odor Levels of Biosolids Applied to Reuse Sites, 652

Gadhamshtetty, V.

Improving Air-Cooled Condenser Performance in Combined Cycle Power Plants, 429

Galal, Ahmed

see Kupferle, Margaret J., P.E., 656

Gali, Veeresh S.

Biodegradation of Phenol with Wastewater as a Cosubstrate in Upflow Anaerobic Sludge Blanket, 759

Gallagher, Patricia M.

see Grubb, Dennis G., 830

see Grubb, Dennis G., 831

Gallagher, Thomas W., P.E.

see Thuman, Andrew J., P.E., 719

Galloway, Patricia D., P.E.

Comparative Study of University Courses on Critical-Path Method Scheduling, 358

Survey of the Construction Industry Relative to the use of CPM Scheduling for Construction Projects, 357

Galsworthy, Jon

see Kijewski-Correa, Tracy, 1588

Galvão, T. C. Brito

see Mendonça, A. A., 1276

Gambatese, John

see Pocock, James B., 325

Ganapathi, M.

Influence of Functionally Graded Material on Buckling of Skew Plates under Mechanical Loads, 528

GangaRao, Hota V. S.

see Laosiriphong, Krit, 153

see Prachasaree, Woraphot, 146

Gangopadhaya, S.

see Dey, Partha Pratim, 1713

see Dey, Partha Pratim, 1728

Gao, Bin

see Collick, Amy S., 731

Gao, C. K.

see Lai, C. H., 1942

Gao, Fuping

Improved Analysis Method for Wave-Induced Pipeline Stability on Sandy Seabed, 1727

Gao, Zhili

Approaches to Improving the Quality of Construction Drawings from Owner's Perspective, 405

Gara, Fabrizio

see Dezi, Luigino, 1573

Garavaglia, E.

Probabilistic Model for the Assessment of Historic Buildings under Permanent Loading, 1361

Garber, Nicholas J.

Safety Impacts of Differential Speed Limits for Trucks and Passenger Cars on Rural Interstate Highways: A Modified Empirical Bayes Approach, 1665

Garbrecht, Jürgen D.

Comparison of Three Alternative ANN Designs for Monthly Rainfall-Runoff Simulation, 1122

Garcia, Camilo

Using GPS to Measure the Impact of Construction Activities on Rural Interstates, 339

Garcia, Luis A.

Development of GIS-Based Model to Estimate Relative Reductions in Crop Yield due to Salinity and Waterlogging, 1227

García, Marcelo H.

see Cataño-Lopera, Yovanni, 1897

see León, Arturo S., 1010

García-Navarro, P.

see Pérez, G., 977

Gardner, Douglas J.

see Cassidy, Eric D., 1453

Gardoni, Paolo

see Ramamoorthy, Sathish K., 1593

Garnica, Paul

see Rojas, Eduardo, 44

Garoma, Temesgen, P.E.

Oxidation of Methyl *tert*-Butyl Ether in Aqueous Solution by an Ozone/UV Process, 743

Garrett, Brian H.

see Rollins, Kyle M., 894

see Rollins, Kyle M., 895

Garvin, N. L.

Minimizing Mass Transfer Effects in Granular Iron Batch Tests Using GEM Reactors, 776

Gasparini, D. A.

Battery-Joralemon Street Tunnel, 1374

Time-Dependent Behavior of Posttensioned Wood Howe Bridges, 1480

see Dai, H., 464

Gassman, Sarah L.

see Leon, Evangelia, 811

Gastal, Francisco de Paula Simões Lopes

see Barbieri, Ranier Adonis, 1442

Gates, Timothy K.

see Burkhalter, J. Philip, 1166

see Wittler, James M., 1213

- Gavin, Henri P.
see Alhan, Cenk, 504
- Gazzola, Fabio
see Lee, Marcus M. K., 1545
- Ge, Hanbin
see Chen, Zhiyi, 1486
- Ge, Zhi
see Wang, Kejin, 1302
- Gebken, Richard J., II
 Quantification of Costs for Dispute Resolution Procedures in the Construction Industry, 1429
- Gebrawi, Omar
see Tabsh, Sami W., 1973
- Gebre-Egziabher, Demoz
 Calibration of Strapdown Magnetometers in Magnetic Field Domain, 68
- Gee, Glendon W.
see Albright, William H., 906
- Geem, Zong Woo
 Parameter Estimation for the Nonlinear Muskingum Model using the BFGS Technique, 1217
- Gellner, W. James, II
 Hydraulic Conductivity of Soil Sorptive Zones Created by In Situ Injection of a Cationic Surfactant, 773
- Genaidy, A.
see Salem, O., 1256
- Georgakakos, Konstantine P.
see Shamir, Eylon, 1111
- Ger, A. Metin
see Aydin, Ismail, 1029
- Gerba, Charles P.
see Song, Inhong, 725
- Gergely, Janos, P.E.
see Stiller, William B., P.E., 142
- Gerhart, Phil C., P.E.
see Noble, Richard M., P.E., 1997
- Germaine, John T.
see Santagata, Marika, 810
- Gettu, Ravindra
see de Oliveira e Sousa, José Luiz Antunes, 449
see Sena Cruz, José M., 218
- Getz, Daniel R.
 Static and Cyclic Racking Performance of Autoclaved Aerated Concrete Cladding Panels, 86
- Geurink, Jeffrey S.
 Time-Step Dependency of Infiltration Errors in the HSPF Model, 1102
- Ghaboussi, Jamshid
see Hashash, Youssef M. A., P.E., 872
- Ghaemian, Mohsen
see Sheibany, Farrokh, 487
- Ghahramani, A.
see Johari, A., 840
- Ghani, A. Ab
see Sinnakaudan, S. K., 983
- Gharaibeh, Nasir G., P.E.
 Decision Methodology for Allocating Funds across Transportation Infrastructure Assets, 1137
- Ghassemi, A.
 Porothermoelastic Analysis of the Response of a Stationary Crack using the Displacement Discontinuity Method, 437
- Ghassemi, Ahmad
see Kumar, G. Suresh, 1106
- Ghataora, Gurnel S.
see Poh, H. Y., 1285
- Ghazireh, Nizar
see Poh, H. Y., 1285
- Ghidaoui, M. S.
see Nixon, W., 1025
- Ghidaoui, Mohamed S.
see León, Arturo S., 1010
- Ghionna, Vito Nicola
 Liquefaction Resistance of Undisturbed and Reconstituted Samples of a Natural Coarse Sand from Undrained Cyclic Triaxial Tests, 797
- Gholston, Sampson E.
see Anderson, Michael D., 1784
- Ghosh, Ambarish
 Leaching of Lime from Fly Ash Stabilized with Lime and Gypsum, 1273
- Ghosh, Sampson E.
 Tensile Strength Bearing Ratio and Slake Durability of Class F Fly Ash Stabilized with Lime and Gypsum, 1263
- Ghosh-Dastidar, Samanwoy
 Neural Network-Wavelet Microsimulation Model for Delay and Queue Length Estimation at Freeway Work Zones, 1697
- Ghosn, Michel
see Ali-Ahmad, Mohamad, 530
see Wang, Jian, 1582
- Giancaspro, James
 Use of Inorganic Polymer to Improve the Fire Response of Balsa Sandwich Structures, 1303
- Giang, Geneva
see Hinze, Jimmie, 320
- Giannuzzi, Leda
see Caravelli, Alejandro, 713
- Gibson, G. Edward, Jr.
 What is Preproject Planning, Anyway?, 1241
- Gibson, G. Edward, Jr., P.E.
see Matthews, Benjamin, 1259
- Gibson, G. Edward, P.E.
see Gebken, Richard J., II, 1429
- Gibson, Ronald F.
see Mu, Bin, 196
see Wu, Hwai-Chung, 147
- Gigliotti, Rosario
see Braga, Franco, 1577

AUTHOR INDEX

Goudar

Gil, A. J.

Parallel Multigrid Detached Eddy Simulation Algorithm for Three-Dimensional Unsteady Incompressible Flows on Unstructured Meshes, 82

Gilbert, R. Ian

see Wang, Tao, 1601

Gillman, Kevin

see Balling, Richard J., 1552

Ginestet, Philippe

see Rivero, Jesús A. Cacho, 670

Girand, Matthew

see Gellner, W. James, II, 773

Girish, J.

Thermomechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels, 448

Gitelman, Victoria

Screening Tools for Considering Grade Separation at Rail-Highway Crossings, 1668

Giunta, Ugo

see Ignaccolo, Matteo, 1789

Giussani, Francesca

Service-Stage Analysis of Curved Composite Steel-Concrete Bridge Beams, 1629

Gjelsvik, Atle

see Smyth, Andrew W., 493

Gladke, Joseph R., P.E.

see Shane, Jennifer S., 1906

Glagola, Charles R.

see Minchin, R. Edward, Jr., 1242

Glass, J.

see Soetanto, R., 316

Goda, K.

Optimal Seismic Design Considering Risk Attitude, Societal Tolerable Risk Level, and Life Quality Criterion, 1639

Godinot, Myriam

see Chua, David K. H., 294

Godoy, Luis A.

Differences between Experts and Novices in the Review of Engineering Journal Papers, 1409

Godrej, Adil N.

see Dougherty, Mark, 643

Goel, Amit

see Gupta, Rajiv, 1311

Goel, Prem K.

see Jiang, Zhuojun, 1719

Goel, Ramesh K.

Evaluation of a Sludge Yield and Phosphorus Removal in a Cannibal Solids Reduction Process, 735

Goel, Subhash C.

see Parra-Montesinos, Gustavo J., 1571

Goel, Sudha

Health Risk Assessment for a Contaminated Site: A Case Study, 1964

Göğüş, M.

Broad-Crested Weirs with Rectangular Compound Cross Sections, 1193

Gokhale, Sanjiv

Deployment of Fiber Optic Networks through Underground Sewers in North America, 1737

Goktepe, A. Burak

Role of Learning Algorithm in Neural Network-Based Backcalculation of Flexible Pavements, 287

Goldfeld, Yiska

Elastic Buckling of Laminated Conical Shells Using a Hierarchical High-Fidelity Analysis Procedure, 575

Gonçalves, Roberto Martins

see Chodraui, Gustavo Monteiro de Barros, 1503

Gong, Xiao-Nan

see Xing, Hao-Feng, 849

Gong, Yanglin

see Xu, Lei, 1466

Gonzales, James

see Everett, Jess W., P.E., 1968

González-Altozano, Pablo

see Palau-Salvador, Guillermo, 1224

Goodings, D. J.

see Han, S. J., 786

Goodman, Alvin S

Infrastructure Planning Handbook -- Planning, Engineering, and Economics, 2075

Gopalakrishnan, Kasthurirangan

Assessing Damage to Airport Pavement Structure due to Complex Gear Loads, 1761

Gopalakrishnan, S.

see Sasmal, Saptarshi, 1392

GORANTIWAR, S. D.

see Smout, I. K., 1203

see Yan, J. M., 752

GORANTIWAR, Sunil D.

Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. I: Method, 1201

see Smout, Ian K., 1202

Goren, Ytzhak D.

see Telem, Dory, 299

Gorman, Thomas M., P.E.

see Green, David W., 1261

Goswami, Arkopal K.

see Miller, John S., P.E., 1674

Goto, Yoshiaki

Change of Weld Residual Stresses due to Loss of Material, 1630

Stability and Ductility of Thin-Walled Circular Steel Columns under Cyclic Bidirectional Loading, 1599

Gotoh, Keinosuke

see Watanabe, Kohei, 1781

Goudar, Chetan T.

see Sonnad, Jagadeesh R., 1017

- Gourvenec, Susan
Undrained Bearing Capacity of Square and Rectangular Footings, 27
- Gourves, Roland
see Breul, Pierre, 787
- Gouvenot, Daniel
see Delfosse-Ribay, Estelle, 823
- Graber, Ellen R.
Soil Stabilization in Semiarid and Arid Land Agriculture, 1282
- Graber, S. David
Asymmetric Flow in Symmetric Supercritical Expansions, 953
- Grace, Robert A.
Considerations for Storm-Water Outfalls off Exposed Coasts, 1233
- Hybrid Course Linking Natural Hazards with Probability and Statistics, 1425
- Graham, Nigel J. D.
see Campos, Luiz C., 697
see Campos, Luiz C., 698
- Graham, Randall, P.E., ed.
Examining the Confluence of Environmental and Water Concerns, 2065
- Graham, Samuel
see Higgs, C. Fred, III, 1418
- Grammatikopoulou, A.
General Formulation of Two Kinematic Hardening Constitutive Models with a Smooth Elastoplastic Transition, 41
- Gransberg, Douglas D.
see Shane, Jennifer S., 1906
- Gransberg, Douglas D., P.E.
Preparing for Design-Build Projects: A Primer for Owners, Engineers, and Contractors, 2081
- Grant, S. R.
see Tai, C. S., 669
- Gratchev, Ivan B.
How Reliable is the Plasticity Index for Estimating the Liquefaction Potential of Clayey Sands?, 790
- Graveto, Victor M.
see Diogo, A. Freire, 1018
- Grayman, Walter M.
Locating Monitors in Water Distribution Systems: Red Team-Blue Team Exercise, 1832
- see* Guan, Jiabao, 1827
- Grazzini, Alessandro
see Antonaci, Paola, 1334
- Greco, Venanzio R.
Active Thrust Due to Backfill Subject to Lines of Surcharge, 805
- Green, David W.
Mechanical Grading of Round Timber Beams, 1261
- Green, Jacklyn R.
see Perko, Howard A., P.E., 73
- Green, Mark F.
see MacDougall, Colin, 135
- Green, Perry S.
Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs, 1493
- see* Yazdani, Nur, 1990
- Grégori, Gérard
see Blatchley, Ernest R., III, 742
- Greimann, Blair
Movement of Finite Amplitude Sediment Accumulations, 1003
- Greuel, Andreas, P.E.
see Jones, Jason, P.E., 2012
- Grierson, Donald E., ed.
see Charney, Finley A., ed., 2044
see Xu, Lei, 1466
- Griesmer, Stacey K.
see Fleetham, Charles, 1921
- Griffin, Erin P.
see Kurup, Pradeep U., P.E., 272
see Kurup, Pradeep U., P.E., 882
- Griffin, Ronald C.
Achieving Water Use Efficiency in Irrigation Districts, 1846
- Griffith, Jason
see Spielholz, Peregrin, 393
- Griffiths, D. V.
Undrained Bearing Capacity of Two-Strip Footings on Spatially Random Soil, 54
- Grigg, Neil S.
Condition Assessment of Water Distribution Pipes, 1151
- Griggs, Francis E., Jr.
Development of the Vertical Lift Bridge: Squire Whipple to J. A. L. Waddell, 1872-1917, 168
- Grigoriu, Mircea
Evaluation of Karhunen-Loève, Spectral, and Sampling Representations for Stochastic Processes, 453
- Galerkin Solution for Linear Stochastic Algebraic Equations, 570
- Grigoropoulos, Sotirios G., P.E.
see Manariotis, Ioannis D., 585
- Grimes, George Avery, P.E.
Cost-Effectiveness of Railway Infrastructure Renewal Maintenance, 1729
- Grino, L.
see Abuel-Naga, H. M., 862
- Grizzard, Thomas J., Jr.
see Dougherty, Mark, 643
- Grosenbaugh, Mark
see Han, Seon, 1898
- Gross, Christoph M., ed.
see Wiltshire, Richard L., ed., 2070
- Grosskopf, K. R.
Assessing the Financial Feasibility of Utility-Provided Backup Power during Project Site Planning, 419
- Grotmaack, Rike
Wave Forcing of Small Floating Bodies, 1874

AUTHOR INDEX

Gutierrez

Grubb, Dennis G.

Field Evaluation of Crushed Glass - Dredged Material Blends, 831

Laboratory Evaluation of Crushed Glass-Dredged Material Blends, 830

Gu, Chao

see Zhong, Hongzhi, 491

Gu, Qiang

see Guo, Bing, 1572

Guadagnini, Maurizio

Shear Resistance of FRP RC Beams: Experimental Study, 235

Guaite, M.

see Vidal, P., 542

Guan, Jiabao

Identification of Contaminant Sources in Water Distribution Systems using Simulation - Optimization Method: Case Study, 1827

Guan, Yousheng

see Blatchley, Ernest R., III, 742

Guaraglia, Dardo O.

Decreasing Measuring Errors of a Thermal Groundwater Flowmeter, 1195

Gudina, S.

Physical Response of Geomembrane Wrinkles Overlying Compacted Clay, 902

Guganesharajah, K.

Influence of Uncertainties in the Estimation Procedure of Floodwater Level, 1036

Guggemos, Angela Acree

Decision-Support Tool for Assessing the Environmental Effects of Constructing Commercial Buildings, 102

see Junnila, Seppo, 1138

Guichon, Martín

see Rinaldi, Victor, 784

Guler, Goknil

Evaluation of the Movements of the Dam Embankments by Means of Geodetic and Geotechnical Methods, 1645

Guler, Murat

see Kutay, M. Emin, 777

Günadin, H. Murat

see Doğ, Sevgi Zeynep, 396

Gunaratna, Nilupa

see Blatchley, Ernest R., III, 742

Gunawan, Lukito

see Guralnick, Sidney A., 1991

Guo, Bing

Experimental Behavior of Stiffened and Unstiffened End-Plate Connections under Cyclic Loading, 1572

Guo, James C. Y.

Design of Street Curb Opening Inlets using a Decay-Based Clogging Factor, 1057

Storm-Water Predictions by Dimensionless Unit Hydrograph, 1210

Guo, Kelu

see Minchin, R. Edward, Jr., 1242

Guo, R.

Thermohydraulic Modeling of a Full-Scale Tunnel Sealing Clay Bulkhead, 778

Guo, Shenglian

see Peng, Dingzhi, 1087

Guo, Shwu-Ping

see Hsu, Chaug-Ing, 1799

Guo, W. H.

Safety Analysis of Moving Road Vehicles on a Long Bridge under Crosswind, 478

Guo, Wei Dong, ed.

see Parsons, Robert L., ed., 2067

Guo, Yakun

see Cuthbertson, Alan J. S., 1034

Guo, Yiping

Climate Model Simulation of Point Rainfall Frequency Characteristics, 1127

Updating Rainfall IDF Relationships to Maintain Urban Drainage Design Standards, 1123

see Quader, Asif, 1075

Guo, Yurong

see Shan, Bo, 219

Gupta, Abhinav

see Wirgau, Scott, 271

Gupta, Ajay

see Reddy, B. V. Venkatarama, 1265

see Reddy, B. V. Venkatarama, 1313

Gupta, Ajay Kumar

Uncertainty Analysis of Conventional Water Treatment Plant Design for Suspended Solids Removal, 744

Gupta, Mahesh Chandra

see Bhadauria, Sudhir Singh, 1377

Gupta, Rajiv

New Static Sunshade Design for Energy-Efficient Buildings, 422

Prediction of Concrete Strength using Neural-Expert System, 1311

Gupta, Rakesh

see van de Lindt, John W., 1381

Guralnick, Sidney A.

Strengthening of Reinforced Concrete Bridge Columns with FRP Wrap, 1991

Gurian, Patrick L.

see Charaibeh, Nasir G., P.E., 1137

Gurol, Mirat D.

see Garoma, Temesgen, P.E., 743

Guthrie, W. Spencer

see Hermansson, Åke, 180

Gutiérrez, Alvaro

Determination of Atterberg Limits: Uncertainty and Implications, 816

Gutierrez, Gene

see Rollings, Raymond S., 1370

- Guyader, Andrew C.
Determining Equivalent Linear Parameters for Use in a Capacity Spectrum Method of Analysis, 1445
- Guza, Olga
see Lyons, Terrence, 639
- Ha, Tam Thuc, P.E.
Nonconstrained Flagpole Design Formula, 1454
- Haas, Carl T.
see Beheiry, Salwa M. A., 326
see Brandenburg, Stefanie G., 1248
see Caldas, Carlos H., 361
see Kim, Changwan, 262
see Song, Jongchul, 378
see Srour, Issam M., 392
see Srour, Issam M., 402
- Habel, Katrin
Structural Response of Elements Combining Ultra-high-Performance Fiber-Reinforced Concretes and Reinforced Concrete, 1615
- Habib, Emad H.
Stage-Discharge Relations for Low-Gradient Tidal Streams using Data-Driven Models, 979
- Habibagahi, G.
see Johari, A., 840
- Hackley, S.
see Kavvas, M. L., 1099
- Haehnel, R.
see Shoop, S., 857
- Hag-Elsafi, Osman
see Wattanadechachan, Prapun, 149
- Hager, Willi H.
see Kramer, Kristian, 1023
see Pagliara, Stefano, 976
see Pfister, Michael, 1014
see Unger, Jens, 966
see Zweifel, Andreas, 1888
- Hahn, Daniel E., P.E.
Overture to Omaha, 2024
- Haidar, Khalil
see Turcry, Philippe, 1266
- Hairstans, Robert
see Kermani, Abdy, 1617
- Haj-Ali, Rami
Multiscale Nonlinear Framework for the Long-Term Behavior of Layered Composite Structures, 577
- Hajela, Prabhat
Optimal Design in the Presence of Modeling Uncertainties, 77
- Hajj, Muhammad R.
see Tieleman, Henry W., 1551
- Hakkert, A. Shalom
see Gitelman, Victoria, 1668
- Hall, John F.
see Krishnan, Swaminathan, 470
see Krishnan, Swaminathan, 471
- Halley, James M., P.E.
see Schaad, David E., P.E., 738
- Halling, Marvin W.
see Pulngern, Tawich, 1517
- Halling, Marvin W., P.E.
see Hsieh, Kai H., 174
- Ham, H.
see Baskaran, A., 100
- Hamad, Bilal S.
Comparison of Roles of FRP Sheets, Stirrups, and Steel Fibers in Confining Bond Critical Regions, 222
- Hamada, Masanori
see Ashford, Scott A., 793
- Haman, Dorota Z.
see Cornejo, Camilo, 1215
- Hamburger, Ronald O., S.E.
see Dusenberry, Donald O., P.E., 1400
- Hamlet, Alan F.
see McGuire, Marketa, 1811
- Hammer, Kevin
see Vallejo, Luis E., 56
- Han, Feng
see Wang, Cheng-Der, 12
- Han, Jen-Yu
Stepwise Parameter Estimations in a Time-Variant Similarity Transformation, 1660
- Han, Jie, P.E., ed.
Advances in Earth Structures — Research to Practice, 2045
General Analytical Framework for Design of Flexible Reinforced Earth Structures, 909
see Hong, Zhenshun, 833
- Han, S. C.
Nine-Node Resultant-Stress Shell Element for Free Vibration and Large Deflection of Composite Laminates, 69
- Han, S. J.
Practical Model of Frost Heave in Clay, 786
- Han, Seon
Modeling of Seabed Interaction of Oceanographic Moorings in the Frequency Domain, 1898
- Hancock, Gregory J.
see Yang, Demao, 1492
- Handy, R. L.
Stress Zones Near Displacement Piers: I. Plastic and Liquefied Behavior, 782
Stress Zones near Displacement Piers: II. Radial Cracking and Wedging, 783
- Hanna, Adel M.
Drag Force on Single Piles in Clay Subjected to Surge Loading, 20
- Hanna, Awad S., P.E.
see Menches, Cindy L., P.E., 415
see Menches, Cindy L., P.E., 417
- Hansen, Niels-Erik Ottesen
see Sumer, B. Mutlu, 1879

AUTHOR INDEX

- Hanson, James L., P.E.
see Elton, David J., P.E., 1417
- Hantush, Mohamed M.
see Kalin, Latif, 1128
- Hanæus, Jörgen
see Almqvist, Helena, 700
- Hao, Hong
see Zanardo, Giovanna, 162
- Hapij, Adam, P.E.
see Ettouney, Mohammed, P.E., 1406
- Harada, Hideki
see Tandukar, Madan, 601
- Harajli, M. H.
 Strengthening of Interior Slab — Column Connections
 using a Combination of FRP Sheets and Steel Bolts,
 229
- Harder, Leslie F., Jr.
see Cetin, K. Onder, 10
- Harding, Anthony
see Lowe, David J., 362
- Hargrove, S. Keith
see Ding, Duowen, 851
- Harik, I. E.
see Alagusundaramoorthy, P., 141
- Harjes, D.
see Shoop, S., 857
- Harmon, Kathleen M. J.
 The Effective Mediator, 1435
- Haroon, Saif
 Posttensioned Anchorage Zone Enhancement with
 Fiber-Reinforced Concrete, 159
see Yazdani, Nur, P.E., 1362
- Haroon, Saif A.
see Yazdani, Nur, 1990
- Haroon, Saif Abdullah
 Hurricane Mitigation of the Florida House Learning
 Center, 1382
- Harper, Colin
see Owolabi, Abidemi, 257
- Harper, Willie F., Jr., P.E.
see Yi, Taewoo, 757
- Harries, Kent A.
 Debonding- and Fatigue-Related Strain Limits for
 Externally Bonded FRP, 197
see Aidoo, John, 138
see Eckstrom, Richard L., 85
see Moses, Jonathan P., 143
- Harrington, Gregory W.
see Xagorarakis, Irene, 692
- Harris, Kevin L., P.E.
see Dettmers, Dana L., 1952
- Harrison, Andrew, P.E.
see Rushing, John F., 1394
- Hart, Brian K.
see Newcombe, Remembrance L., 583

Hattis

- Hart, Bud
see Fischer, Paul, P.E., 2043
- Hart, David B.
see McKenna, Sean A., 1833
- Hart, William E.
see Berry, Jonathan, 1823
- Harter, Thomas
see Marques, Guilherme F., 1849
- Hartt, William
see Suarez, Jorge, 1327
- Harvey, John T.
see Lee, Eul-Bum, 334
- Harvey, John T., P.E.
see Lee, Eul-Bum, P.E., P.M.P., 1752
- Haselbach, Liv M.
see Valavala, Srinivas, 1098
- Hashash, Y. M. A.
see Su, Y. Y., 410
- Hashash, Youssef M. A., P.E.
 Novel Approach to Integration of Numerical Modeling
 and Field Observations for Deep Excavations, 872
- Hassan, Ali N.
see El Sherbiny, Ahmed H., 729
- Hassan, Kazi Z. A.
 Iron Oxide Enhanced Chlorine Decay and Disinfection
 By-Product Formation, 767
- Hassan, M. F.
see Almutairi, Naif B., 500
- Hassan, Munzer
see Chaallal, Omar, 189
see Chaallal, Omar, 191
- Hassan, O.
see Gil, A. J., 82
- Hastak, M.
see Banerjee, D., 103
- Hastak, Makarand
see Goodman, Alvin S., 2075
see Hong, TaeHoon, 245
see Jeong, Jae G., 1771
see Jeong, Jae G., 1797
see Sukumaran, Praveen, 1717
- Hatami, Kianoosh
 Numerical Model for Reinforced Soil Segmental Walls
 under Surcharge Loading, 841
- Hatch, Sybil E.
 Changing Our World: True Stories of Women Engi-
 neers, 2054
- Hatchett, Steve
see Marques, Guilherme F., 1849
- Hatipoglu, Figen
see Sumer, B. Mutlu, 1879
- Hattis, David B.
 Standards Governing Glazing Design in Hurricane
 Regions, 94

- Haugen, Tore I.
see Lædre, Ola, 356
- Haukaas, Terje
 Efficient Computation of Response Sensitivities for Inelastic Structures, 1464
- Hauke, Christopher, P.E.
see Jones, Jason, P.E., 2012
- Hausler, Robert
see Meunier, Nathalie, 660
- Havet, Michel
see Rouaud, Olivier, 611
- Hay, Shaun
 Effectiveness of GFRP Sheets for Shear Strengthening of Timber, 237
- Hayden, Nancy
see Porter, Andrea, 596
- Hayden, Nancy J.
see Rossman, Anthony J., 659
- Hayden, William M., Jr., P.E.
 Human Systems Engineering™ — A Trilogy, Part II: May The Force Be With You: Anatomy Of Project Failures, 1904
- Hazaree, C. V.
see Bapat, J. D., 1310
- Hazlett, Darren, P.E.
see Yildirim, Yetkin, P.E., 1322
- He, Chansheng
see Croley, Thomas E., II, 1071
- He, Cheng
 Case Study: Refinement of Hydraulic Operation of a Complex CSO Storage/Treatment Facility by Numerical and Physical Modeling, 944
- He, Wenlong
see Easa, Said M., 1700
- He, Xin
see Cleveland, Theodore G., 1218
- He, Zaicheng
see Xu, Xingxin, 932
- Healy, Dan
 Experimental Study of Ice Jam Formation Dynamics, 186
- Healy, Mark Gerard
see Rodgers, Michael, 685
- Heaney, James P.
see Sample, David J., 1839
see Wright, Leonard T., 1154
- Hearn, George
 Shape Selection for Lattice Structures, 1608
- Hedrick, Kevin P.
 Impact of Tunnel Reconstruction on Stream Water Quality in Great Smoky Mountains Natl. Park, 1129
- Hedström, Annelie
 Methodological Aspects of using Blast Furnace Slag for Wastewater Phosphorus Removal, 746
- Hefer, Arno W.
 Bitumen Surface Energy Characterization Using a Contact Angle Approach, 1350
- Heffernan, P. J.
see Wight, R. G., 151
- Hefny, A. M.
see Zhao, X. B., 498
- Hegab, Mohamed, P.E.
 Soil Penetration Modeling in Microtunneling Projects, 347
- Hegab, Mohamed Y., P.E.
see Nassar, Khaled M., 343
- Hegazy, Tarek
 Computerized System for Efficient Delivery of Infrastructure Maintenance/Repair Programs, 290
see Kassab, Moustafa, 391
- Heiyantuduwa, R.
 Performance of a Penetrating Corrosion Inhibitor in Concrete Affected by Carbonation-Induced Corrosion, 1359
- Hejazi, Mehrdad
 Structural Analysis of the Wooden Structure of the Historical Building of Ali Qapu, 1616
- Hellmich, Christian
see Pichler, Bernhard, 913
- Henderson, Andrew D.
see Charbeneau, Randall J., 978
- Hendren, Patricia
 Evaluating the Effectiveness of State Department of Transportation Investment Decisions: Linking Performance Measures to Resource Allocation, 1159
- Henning, John T.
 Membrane Behavior of Two Backfills from Field-Constructed Soil-Bentonite Cutoff Walls, 892
- Henning, Kevin, P.E.
see Post, Carol, P.E., 2021
- Henry, Thomas
see Zou, Rui, 644
- Henze, Gregor P., P.E.
see Bunz, Kimberly R., 88
- Hereth, William R.
 Automated Estimation of Average Stopped Delay at Signalized Intersections using Digitized Still-Image Analysis of Actual Traffic Flow, 258
- Hermansson, Åke
 Numerical Modeling of Thaw Penetration in Frozen Ground Subject to Low-Intensity Infrared Heating, 180
- Hernandez, H.
see Serrette, R., 1497
- Hernández-Montes, E.
 Topological Mapping for Tension Structures, 1535
see Tjhin, T., 1485
- Herrera, Rodrigo
see Hu, Zhihong, 820
- Heslop, S.
see Tierney, M. J., 622

AUTHOR INDEX

Hong

- Hesselslink, Annika W.
Historic Discharge Measurements in Three Rhine Branches, 945
- Hicher, P.-Y.
Anisotropic Nonlinear Elastic Model for Particulate Materials, 874
- Hicks, F. E.
see Healy, Dan, 186
- Higgins, Christopher, P.E.
High-Cycle Fatigue of Diagonally Cracked Reinforced Concrete Bridge Girders: Field Tests, 173
- Higgins, Peter S.
see Filiatrault, André, 1987
- Higgins, Rebecca B.
see Baise, Laurie G., 844
- Higgs, C. Fred, III
Development of New Faculty: Summary of the NSF-CMS WEE Workshop, 1418
- Highfield, Wesley E.
Price of Permits: Measuring the Economic Impacts of Wetland Development on Flood Damages in Florida, 1934
- Higuchi, Toru
see Hyde, Adrian F. L., 845
- Hii, Adrian K. Y.
Experimental Investigation on Torsional Behavior of Solid and Box-Section RC Beams Strengthened with CFRP using Photogrammetry, 221
- Hill, D. F.
see Lennon, J. M., 1060
- Hill, John M.
see U, José Terán, 1994
- Himeno, Shuji, nagaokaut.ac.jp
Determination and Correlation of Binary Gas Adsorption Equilibria of VOCs, 616
- Hinlein, Erich S.
see Ostendorf, David W., 761
- Hinze, Jimmie
Analysis of Construction Worker Injuries That Do Not Result in Lost Time, 320
see Huang, Xinyu, 304
see Huang, Xinyu, 305
- Hipel, Keith
see Kassab, Moustafa, 391
- Hitchcock, Peter A.
see Burton, Melissa D., 1468
- Ho, David T.
Comparison of SF₆ and Fluorescein as Tracers for Measuring Transport Processes in a Large Tidal River, 774
- Ho, S. Ping
Model for Financial Renegotiation in Public-Private Partnership Projects and Its Policy Implications: Game Theoretic View, 355
- Ho, Tom, P.E.
see Tang, Man-Chung, P.E., 2006
- Ho, Tsung-Chun
see Lin, Chang, 488
- Ho, Vivian S. M.
see Hui, Eddie C. M., 1780
- Ho, Yao-Hsien
see Lee, Kwan Tun, 963
- Hoehler, Matthew S.
Simple Phenomenological Model for Reinforcing Steel under Arbitrary Load, 1542
- Hoeksema, Robert J.
Designed for Dry Feet: Flood Protection and Land Reclamation in the Netherlands, 2059
- Hoel, Lester A., P.E.
see Miller, John S., P.E., 1674
- Hofland, Bas
Probability Density Function of Instantaneous Drag Forces and Shear Stresses on a Bed, 1050
- Hoit, Marc, ed.
see Charney, Finley A., ed., 2044
- Hojník, Tomáš
see Četina, Matjaž, 943
- Holbrook, R. David
see Yi, Taewoo, 757
- Hollander, Yaron
Determining the Desired Amount of Parking using Game Theory, 1778
- Hollaway, Len C.
see Photiou, Nikolaos K., 1335
- Holler, Stefan
Granular Material Silos under Dynamic Excitation: Numerical Simulation and Experimental Validation, 1594
- Holmes, William T.
see Kircher, Charles A., 1927
- Holmgren, Åke J.
Using Disturbance Data to Assess Vulnerability of Electric Power Delivery Systems, 1161
- Holst, Troy
see Leung, Susanna M., 603
- Homniam, Phakphong
see Satirapod, Chalermchon, 1642
- Hondzo, Miki
see Weiss, Jeffrey D., 717
- Honeyman, Bruce D.
see Kantar, Cetin, 609
- Hong, Chun-Beom
Numerical and Experimental Study on Ship Wash Including Wave-Breaking on Shore, 1889
- Hong, Feng
Estimation of Pavement Performance Deterioration using Bayesian Approach, 1144
- Hong, H. P.
Optimal Scheduling of Replacement and Rehabilitation of Water Distribution Systems, 1155
see Goda, K., 1639

- Hong, Sze-Yunn
see Show, Kuan-Yeow, 1267
- Hong, Tachoon
 Construction, Inspection, and Maintenance of FRP Deck Panels, 245
see Sukumaran, Praveen, 1717
see Sukumaran, Praveen, 1733
- Hong, Zhenshun
 Comparison in Undrained Shear Strength between Undisturbed and Remolded Ariake Clays, 806
 Experimental Study of Macro- and Microbehavior of Natural Diatomite, 833
see Luna, Ronaldo, ed., 2088
- Hoo, Wei Yee
see Ling, Florence Yean Yng, 309
- Hook, David E., P.E.
 Deflection Protection, 2032
- Horman, Michael J.
 Sequence Planning for Electrical Construction, 324
see El Wardani, Marwa A., 311
see Lapinski, Anthony R., 395
see Pulaski, Michael H., 91
see Thomas, H. Randolph, 297
- Hornych, Pierre
see Chazallon, C., 40
- Horvath, Arpad
see Guggemos, Angela Acree, 102
see Junnila, Seppo, 1138
see Kitou, Erasmia, 1149
- Hosbas, Gursel
see Guler, Goknil, 1645
- Hossain, Khandakar M. Anwar
 Macro- and Microstructural Investigations on Strength and Durability of Pumice Concrete at High Temperature, 1320
- Hossain, Md. Akram
see Alam, Mahbub, 623
- Hou, Chao-Sheng
 Axisymmetric Nonlinear Stability of a Shallow Conical Shell with a Spherical Cap of Arbitrary Variable Shell Thickness, 555
- Houck, Mark H., P.E.
see Skolicki, Zbigniew, 1822
- Houghton, Robert W.
see Ho, David T., 774
- Hourani, May S.
 Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. II: Experimental Results and Quality Assurance, 1269
see Inyang, Hilary I., 1268
- Houston, Sandra L., ed.
see Miller, Gerald A., ed., 2096
- Howell, Daniel A.
 System for In-Service Strain Monitoring of Ordinary Bridges, 170
- Howell, Terry A.
see Irmak, Suat, 1228
- Howitt, Richard
see Marques, Guilherme F., 1849
- Hoyos, Laureano R., ed.
see Lu, Ning, ed., 2046
see Puppala, Anand J., 808
- Hrudey, T. M.
see Khoo, H. A., 546
- Hryciw, Roman
see Elsworth, Derek, 915
- Hsieh, C. D.
 Study of Total Maximum Daily Load and Nonpoint Source Pollution Control Strategies for Reservoir Watershed, 1954
- Hsieh, Kai H.
 Overview of Vibrational Structural Health Monitoring with Representative Case Studies, 174
- Hsieh, M.-J.
see Chen, Shyi-Tien, 678
- Hsing, Hao-Jan
 Evaluation of Decolorization, Mineralization, and Toxicity Reduction of an Azo Dye C.I. Reactive Black 5 in a Countercurrent Bubble Column by Ozone, 1940
- Hsiung, Yun-Mei
 Analytical Solution for Piles Supporting Combined Lateral Loads, 899
- Hsu, Chang-Ing
 CBD Oriented Commuters' Mode and Residential Location Choices in an Urban Area with Surface Streets and Rail Transit Lines, 1799
- Hsu, Chu-Chung
 Threshold Shear Strain for Cyclic Pore-Water Pressure in Cohesive Soils, 900
- Hsu, C.-Y.
see Chen, Shyi-Tien, 689
- Hsu, Ming-Hsi
 Dynamic Routing Model with Real-time Roughness Updating for Flood Forecasting, 992
- Hsu, Shaohua Marko
see Tseng, Chih-Ming, 1012
- Hsu, Sung-Chi
 Material Spatial Variability and Slope Stability for Weak Rock Masses, 796
- Hsu, Tung-Wen
 Behavior of One-Dimensional Consolidation under Time-Dependent Loading, 480
 Soil Restraint to Oblique Movement of Buried Pipes in Dense Sand, 1681
- Hsu, Wen-Chung
see Wu, Jong-Cheng, 1448
- Hsuan, Grace
see Suarez, Jorge, 1327
- Hu, Alan Y.
 Treatment of Dilute Wastewaters using a Novel Submerged Anaerobic Membrane Bioreactor, 604
- Hu, Henry H.
 Gridded Snowmelt and Rainfall-Runoff CWSM Hydrologic Modeling of the Red River of the North Basin, 1080

AUTHOR INDEX

- Hu, Jing**
 Selective Removal of Heavy Metals from Industrial Wastewater using Maghemite Nanoparticle: Performance and Mechanisms, 679
- Hu, L. M.**
 Centrifuge Testing of LNAPL Migration and Soil Vapor Extraction for Soil Remediation, 1943
- Hu, Sau-Lon James**
 Cross-Modal STrain Energy Method for Estimating Damage Severity, 477
- Hu, S.-L. James**
 see Li, Huajun, 533
- Hu, X. G.**
 Erosive Wear of Hydraulic Concrete with Low Steel Fiber Content, 1065
- Hu, Xiaofeng**
 Damage Identification Based on Dead Load Redistribution: Effect of Measurement Error, 1563
 see Shenton, Harry W., III, 1562
- Hu, Yi-Yiang**
 see Lin, Jen-Jia, 1773
- Hu, Zhihong**
 Influence of Torque on Lateral Capacity of Drilled Shafts in Sands, 820
- Hual, Wenxin**
 Numerical Simulation of Obstructed Round Buoyant Jets in a Static Uniform Ambient, 974
- Huang, Baoshan, ed.**
 Pavement Mechanics and Performance, 2079
- Huang, Bingbin**
 see Fang, Hongwei, 1053
- Huang, Bo**
 see Liu, Nan, 286
- Huang, Chang-Wei**
 see Leu, Liang-Jeng, 1531
- Huang, Chen-Wei**
 see Chen, Liang-Chien, 1651
- Huang, Chien-Wei**
 see Kuo, Chen-Ming, 1321
- Huang, Chihpin**
 see Den, Walter, 772
- Huang, Ching-Tung**
 Equivalent Linearization for the Nonstationary Response Analysis of Nonlinear Systems with Random Parameters, 481
- Huang, Frank Y. C., P.E.**
 Feasibility of Using Natural Zeolites to Remove Sodium from Coal Bed Methane-Produced Water, 771
- Huang, He Qing**
 Scale Independent Linear Behavior of Alluvial Channel Flow, 1002
- Huang, Jianchun**
 see Greimann, Blair, 1003
- Huang, Jin H.**
 Electroelastic Response of a Laminated Composite Plate with Piezoelectric Sensors and Actuators, 526

Hung

- Huang, Ju-Sheng**
 see Ting, Wen-Huei, 635
- Huang, Kevin**
 see Vickery, Peter J., 1930
- Huang, Maosong, ed.**
 see Luna, Ronaldo, ed., 2088
- Huang, Miin-Jye**
 see Teng, Junn-Yuan, 1791
- Huang, Poshu**
 see Litwack, Howard S., 642
- Huang, Rong-yau**
 Non-Unit-Based Planning and Scheduling of Repetitive Construction Projects, 346
- Huang, Sen-Tien**
 see Shih, Naai-Jung, 301
- Huang, Wen-Chih**
 see Teng, Junn-Yuan, 1791
- Huang, Wenxiong**
 Finite-Element Parametric Study of the Consolidation Behavior of a Trial Embankment on Soft Clay, 45
- Huang, Xinjiang**
 Measured and Predicted Herbicide Removal by Mulch, 702
- Huang, Xinyu**
 Owner's Role in Construction Safety, 304
 Owner's Role in Construction Safety: Guidance Model, 305
- Huang, Yi-Chu**
 see Wu, Ting-Nien, 1955
- Huang, Yong H.**
 see Zhang, Tian C., 658
- Huang, Z.**
 Modified Skew Bending Model for Segmental Bridge with Unbonded Tendons, 109
- Hubbard, K. G.**
 see Sridhar, V., 1216
- Huebschman, Ryan**
 see Garcia, Camilo, 339
- Hughes, Erin**
 Live-Load Distribution Factors for Prestressed Concrete, Spread Box-Girder Bridge, 160
- Huh, Youngki**
 see O'Connor, James T., 328
- Hui, Chi Mun Eddie**
 see Mostafa, Anirban, 1779
- Hui, Eddie C. M.**
 Market Disequilibrium and Urban Land Shortages: Analysis of Policy and Patterns in Hong Kong, 1780
- Hull, T. S.**
 see Surjadinata, J., 49
- Hundal, Lakhwinder S.**
 see Pirnie, Erica F., 662
- Hung, Way-Chang**
 see Hsu, Tung-Wen, 1681

Hung, Wen-Chi

Catalytic Incineration of Acrylonitrile with Platinum Supported on Al_2O_3 , 751

Hunt, Bruce

Asymptotic Solutions for One-Dimensional Dispersion in Rivers, 940

Hunt, Suzanne P.

see Camac, Bronwyn A., 52

Hunt, W. F.

Evaluating Bioretention Hydrology and Nutrient Removal at Three Field Sites in North Carolina, 1232

Hunter, Kirsty

see Yu, Ann T. W., 404

Huo, Sharon

see Patrick, Michael D., 117

Huo, X. Sharon

Case Study of a High-Performance Concrete Bridge in Tennessee, 1992

see Conner, Stewart, 123

Husain, Tahir

see Chowdhury, Shakhawat, 728

Hutchinson, Tara C.

Improved Image Analysis for Evaluating Concrete Damage, 265

see Chaudhuri, Samit Ray, 1527

Hwang, Hwa-Wei

see You, Rey-Jer, 1649

Hwang, Sangchul

Remediation of RDX-Contaminated Water using Alkaline Hydrolysis, 610

Hwang, Sz-Chwun John

see Lin, Yun-Huin, 630

Hyari, Khalid

Lighting Requirements for Nighttime Highway Construction, 331

Optimal Planning and Scheduling for Repetitive Construction Projects, 1238

Hyde, Adrian F. L.

Liquefaction, Cyclic Mobility, and Failure of Silt, 845

see Takahashi, Naoki, 834

Hymore, F. K.

see Aisien, F. A., 723

Hynes, P.

see McShannon, J., 1424

Hyodo, Masayuki

see Takahashi, Naoki, 834

Hyun, Chang-Taek

see Cho, Young-Jun, 1422

Ibbs, C. William

see Ling, Florence Yean Yng, 309

Ibbs, William

see Chang, Andrew S., P.E., 1240

Ibrahim, Sherif A.

Fatigue of Corrugated-Web Plate Girders: Analytical Study, 1575

Fatigue of Corrugated-Web Plate Girders: Experimental Study, 1574

Ichikawa, Tetsuya

see Azam, Mir Hammadul, 1891

Ickes, Jennifer A.

see Lyons, Terrence, 639

Ideker, Jason

see Yildirim, Yetkin, P.E., 1322

IDriss, I. M.

see Boulanger, Ross W., 908

Idriss, Rola

see Hughes, Erin, 160

Iglesias, Celso

Long-Term Behavior of Precast Segmental Cantilever Bridges, 137

Ignaccolo, Matteo

Discrete Choice Model for Defining a Parking-Fee Policy on Island of Ortigia, Siracusa, 1789

Iida, Masahiro

Three-Dimensional Linear and Simplified Nonlinear Soil Response Methods Based on an Input Wave Field, 46

Iledare, Wumi O.

see Kaiser, Mark J., 369

Imberger, Jörg

see Anobin, Vadim V., 1047

Indraratna, Buddhima

Enhanced Criterion for Base Soil Retention in Embankment Dam Filters, 929

see Sathananthan, Iyathurai, 867

see Walker, Rohan, 866

Ingham, J. M.

see Voon, K. C., 1478

Inman, Daniel J.

see Salehian, Armaghan, 79

Inoue, Jirou

see Xiao, Zhi-Gang, 155

Inoue, Kazuo

Seismic-Resistant Weld-Free Steel Frame Buildings with Mechanical Joints and Hysteretic Dampers, 1525

Insausti, A.

see Puente, I., 242

Inturri, Giuseppe

see Ignaccolo, Matteo, 1789

Inyang, Hilary

see Punthuaecha, Koonamas, 1292

Inyang, Hilary

see Udoeyo, Felix F., 1330

Inyang, Hilary I.

Distribution Deviation of Large Aggregates from Uniformity in Waste Containment Concrete. I: Quantitative Model Formulation, 1268

Porosity Fluctuations in Desiccating Samples of Grout-Stabilized Soil, 1289

see Bae, Sunyoung, 1293

AUTHOR INDEX

Jarny

- see Chaffin, John H., 431
 see Hourani, May S., 1269
- Ioulalen, M.**
 Computation of Short-Crested Deepwater Waves, 1870
- Iourtchenko, D.**
 see Dimentberg, M., 568
- Irabien, Angel**
 see López, Isabel, 706
- Irene, M. C. Lo, ed.**
 Zero-Valent Iron Reactive Materials for Hazardous Waste and Inorganics Removal, 2097
- Irmak, Ayse**
 see Irmak, Suat, 1228
- Irmak, Suat**
 Sensitivity Analyses and Sensitivity Coefficients of Standardized Daily ASCE-Penman-Monteith Equation, 1228
- Irwin, Peter A.**
 Exposure Categories and Transitions for Design Wind Loads, 1612
- Isacsson, Ulf**
 see Karlsson, Robert, 1270
- Ishak, Sherif**
 Potential Computational Benefits of Geometric, Kinematic, and Behavioral Downsampling of Microscopic Traffic Network Simulation, 277
- Ishida, Eisuke**
 see Shimizu, Yoshihisa, 801
- Ishihara, Masanori**
 see Okamura, Mitsuo, 803
- Ishikawa, Tadaharu**
 see Umeda, Makoto, 1020
- Islani, G. M. Tarekul**
 Nodal Point Relation for the Distribution of Sediments at Channel Bifurcation, 1043
- Ismail, Ihab A.**
 Evaluation of Legal Risks for E-Commerce in Construction, 1438
- Ismail, Mostafa A.**
 see Sharma, Shambhu S., 925
- Isoyama, Ryoji**
 see Shimizu, Yoshihisa, 801
- Issa, Raja R. A.**
 see Cox, Robert F., 303
- Issac, Bobby**
 see Kurup, Pradeep U., P.E., 882
- Isumov, Nicholas**
 see Kijewski-Correa, Tracy, 1588
- Itani, Ahmad M., P.E.**
 see Carden, Lyle P., 1471
 see Carden, Lyle P., 1472
- Ito, Hitoshi**
 Sequential Hybrid Inverse Mapping for State-Specified Design of Frames, 1581
- Ivey, Gregory N.**
 see Anohin, Vadim V., 1047
- Iwan, W. D.**
 see Scruggs, J. T., 532
- Iwan, Wilfred D.**
 see Guyader, Andrew C., 1445
 see Huang, Ching-Tung, 481
- Iyengar, Hal, P.E.**
 Serpentine Span, 2000
- Iyer, K. C.**
 Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects, 375
- Iz, H. Baki**
 see Tse, C. M., 1654
- Jabareen, Mahmood**
 Postbuckling Analysis of Geometrically Imperfect Conical Shells, 574
- Jablin, Mark**
 see Patrick, Michael D., 117
- Jackson, N. C.**
 see Papagiannakis, A. T., 1688
 see Papagiannakis, A. T., P.E., 1759
- Jacobson, David A.**
 see Bank, Lawrence C., 208
- Jácome, A.**
 Simultaneous Removal of Organic Matter and Nitrogen Compounds in Autoaerated Biofilms, 727
- Jain, M. K.**
 Enhanced Runoff Curve Number Model Incorporating Storm Duration and a Nonlinear I_p -S Relation, 1136
- Jain, Pradeep**
 Estimating the Hydraulic Conductivity of Landfilled Municipal Solid Waste using the Borehole Permeameter Test, 671
- Jain, Sharad K.**
 Development of Optimal and Physically Realizable Unit Hydrograph, 1134
- Jalilhal, Santosh A.**
 Assessment of the Impact of Improvement Measures on Air Quality: Case Study of Delhi, 1714
- Jan, Huang-Hsiang**
 see Chen, Liang-Chien, 1651
- Jangid, R. S.**
 see Kunde, M. C., 115
- Janke, Robert**
 Comparison of Physical Sampling and Real-Time Monitoring Strategies for Designing a Contamination Warning System in a Drinking Water Distribution System, 1834
 see Murray, Regan, 1831
- Janoo, V.**
 see Shoop, S., 857
- Jarenprasert, Sittipong**
 Inelastic Spectrum-Based Approach for Seismic Design Spectra, 1565
- Jarny, S.**
 see Chanson, H., 960

- Jarrett, A. R.**
 see Hunt, W. F., 1232
- Jaselskis, Edward J.**
 see Elmisalami, Tarek, 414
- see Gao, Zhili, 405**
- Jaśkowski, Piotr**
 Scheduling Construction Projects using Evolutionary Algorithm, 374
- Javan, M.**
 see Shahrokhnia, M. A., 1184
- Javanmardi, Farrokh**
 see Léger, Pierre, 926
- Javdekar, Chitra N.**
 see Sanayei, Masoud, 172
- Jayabalou, R.**
 see Sivacoumar, R., 628
- Jayawardena, A. W.**
 Comparative Analysis of Data-Driven and GIS-Based Conceptual Rainfall-Runoff Model, 1070
- Jefferis, Stephan**
 see Bouazza, Abdelmalek, 871
- Jeng, Dong-Sheng**
 see Gao, Fuping, 1727
- Jeng, Raymond I., P.E.**
 NRCS (SCS) Synthetic Curvilinear Dimensionless Unit Hydrograph, 1236
- Jenkins, Marion**
 see Marques, Guilherme F., 1849
- Jennings, Aaron A.**
 see Petersen, Elijah J., 627
- Jennings, Aaron A., P.E.**
 see Deng, Xiaolin, 641
- Jennings, Kristofer**
 see Blatchley, Ernest R., III, 742
- Jensen, Derek H.**
 see Rollins, Kyle M., 894
 see Rollins, Kyle M., 895
- Jensen, Paul**
 see Suarez, Monica P., 770
- Jeon, Christy Mihyeon**
 Transportation System Sustainability Issues in High-, Middle-, and Low-Income Economies: Case Studies from Georgia (U.S.), South Korea, Colombia, and Ghana, 1793
- Jeong, Daell**
 see Kim, Young-Oh, 1130
- Jeong, Hyung Seok**
 Operational Response Model for Physically Attacked Water Networks using NSGA-II, 283
- Jeong, Hyung Seok (David)**
 see Baik, Hyeon-Shik, 1802
- Jeong, Jae G.**
 Supply Chain Analysis and Modeling for the Manufactured Housing Industry, 1771
 Supply Chain Simulation Modeling for the Manufactured Housing Industry, 1797
- Jeong, Jin-Hoon**
 Finite-Element Modeling and Calibration of Temperature Prediction of Hydrating Portland Cement Concrete Pavements, 1295
- Jeong, Sang-man**
 see Kim, Lee-Hyung, 711
- Jeong, Seong Jin**
 see Baek, Kyong Oh, 1033
- Jeong, Seong-Hoon**
 New Three-Dimensional Damage Index for RC Buildings with Planar Irregularities, 1585
- Jepsen, Richard A.**
 see Ravens, Thomas M., 1899
- Jergeas, George**
 see Moussa, Mohamed, 412
- Jesionek, Krzysztof**
 see Merry, Scott M., 829
- Jha, K. N.**
 see Iyer, K. C., 375
- Jha, Madan K.**
 Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data, 1135
- Jha, Manoj K., P.E.**
 Highway Route Optimization Based on Accessibility, Proximity, and Land-Use Changes, 1708
- Ji, Shunying**
 Effect of Contact Force Models on Granular Flow Dynamics, 566
- Ji, Z.**
 see Xiong, G. J., tu.edu.cn, 215
- Jia, Shaofeng**
 Industrial Water Use Kuznets Curve: Evidence from Industrialized Countries and Implications for Developing Countries, 1819
- Jia, Yafei**
 see Chao, Xiaobo, 753
 see Ding, Yan, 1900
- Jia, Z.**
 Effect of Controlled Drainage and Vegetative Buffers on Drainage Water Quality from Wastewater Irrigated Fields, 1182
- Jiang, Kunsheng**
 see Goto, Yoshiaki, 1599
- Jiang, Zhuojun**
 Improved AADT Estimation by Combining Information in Image- and Ground-Based Traffic Data, 1719
- Jin, Shanshan**
 Polychromatic UV Fluence Measurement using Chemical Actinometry, Bioskimetry, and Mathematical Techniques, 693
- Jin, Yee-Chung**
 see Mihail, Darrell J., 1951
 see Mysore, Deepa, 1957
 see Ramakrishna, Devikarani M., 1962
 see Xia, Cenling, 1013

AUTHOR INDEX

Juri

- Jin, Zhanli
see Yang, Yaowen, 66
- Jing, Chao
see Wang, Dian-Hai, 1774
- Jo, Hyo Jae
see Jung, Kwang Hyo, 454
- Jo, Ji-Seong
Modified Sturm Sequence Property for Damped Systems, 515
- Johal, Prithvi Raj Singh
see Rivin, Eugene I., 1360
- Johann, Matthew A.
Performance-Based Structural Fire Safety, 1369
- Johari, A.
Prediction of Soil-Water Characteristic Curve using Genetic Programming, 840
- Johnson, Billy E.
Numerical Simulation of Depleted Uranium Transport in a Desert Environment using a Distributed Parameter Watershed Model, 1960
- Johnson, Erik A.
see Christenson, Richard E., 462
see Christenson, Richard E., 1524
- Johnson, Gaur P.
see Newton, Craig M., 1384
- Johnson, Michael C.
Innovative Energy-Dissipating Hood, 1006
Physical and Numerical Comparison of Flow over Ogee Spillway in the Presence of Tailwater, 1068
- Johnson, Michelle L.
see Mara, D. Duncan, 646
- Johnson, Rita
see Saiidi, M. Saiid, 152
- Johnston, Adrienne R.
Effects of Vertical Load and Hold-Down Anchors on the Cyclic Response of Wood Framed Shear Walls, 1579
- Johnston, Douglas M.
Downstream Economic Benefits of Conservation Development, 1804
see Nedović-Budić, Zorica, 1795
- Jones, Christopher
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Jones, Jason, P.E.
Geometry Lesson, 2012
- Jones, Jonathan E., ed.
Great Works on Urban Water Resources (1962-2001), 2071
- Jones, Michael
see Medina, Victor F., P.E., 1950
- Jones, Steven L.
see Anderson, Michael D., 1784
- Jordan, Jonathan
see Cornejo, Camilo, 1215
- Joshi, R. C.
see Xu, P., 1941
- Jou, Yow-Jen
Incomplete Information Analysis for the Origin-Destination Survey Table, 1794
- Jowitz, Paul W.
see Ang, Wah Khim, 1818
- Józsa, Zsuzsanna
see Nemes, Rita, 1343
- Ju, Shen-Haw
Reduction of Vibrations due to Foundation Slabs, 825
- Juan, Yi-Kai
see Perng, Yeng-Hong, 390
- Juang, C. Hsein
First-Order Reliability Method for Probabilistic Liquefaction Triggering Analysis using CPT, 809
- Juirnarongrit, Teerawut
Soil-Pile Response to Blast-Induced Lateral Spreading. II: Analysis and Assessment of the p - y Method, 794
see Ashford, Scott A., 793
- Julien, Pierre Y.
see Lee, Jong-Seok, 946
see Lee, Jong-Seok, 1067
- Junaideen, S. M.
see Pradhan, B., 36
- Juneau, O.
see Konrad, J. M., 795
- Jung, Bong Seog
Hydraulic Optimization of Transient Protection Devices using GA and PSO Approaches, 1805
- Jung, Chang H.
Analytic Solution on Critical Suspended Particle Size and Minimum Collection Efficiency in Deep Bed Filtration, 741
- Jung, Hye-Young
see Yoo, Chungsik, 921
- Jung, Jiwon
Finite-Element Analysis of Tapered Steel and Fiber-Reinforced Plastic Bridge Camera Poles, 164
- Jung, Kwang Hyo
Viscous Effect on the Roll Motion of a Rectangular Structure, 454
- Jung, Sungmoon
see Hashash, Youssef M. A., P.E., 872
- Jung, Yong
Transport of Edible Oil Emulsions in Clayey Sands: 3D Sandbox Results and Model Validation, 1096
- Junnila, Seppo
Life-Cycle Assessment of Office Buildings in Europe and the United States, 1138
- Jurado-Piña, R.
see Hernández-Montes, E., 1535
- Juri, Natalia Ruiz
Evaluation of the Trans-Texas Corridor Proposal: Application and Enhancements of the Random-Utility-Based Multiregional Input-Output Model, 1720

- Jutila, Scott A.
 see Hu, Henry H., 1080
- Kaanagbara, Life
 see Chaffin, John H., 431
- Kabir, Ahsanul
 see Mazumder, Anisur Rahman, 1352
- Kabir, M. R.
 see Islam, G. M. Tarekul, 1043
- Kacimov, A. R.
 Capillarity and Evaporation Exacerbated Seepage Losses from Unlined Channels, 1235
 Seepage to a Drainage Ditch and Optimization of Its Shape, 1234
- Kadam, Rupesh
 see Puppala, Anand J., 808
- Kadem, N.
 see Pascal, M., 1168
- Kadir, Tariq N., P.E.
 see Dogrul, Emin C., P.E., 1054
- Kaewkulchai, G.
 Modeling the Impact of Failed Members for Progressive Collapse Analysis of Frame Structures, 1403
- Kagioglou, Michail
 see Costa, Dayana B., 1255
- Kahle, Stephen L., P.E.
 see Masters, Kathryn, P.E., 2028
- Kahn, Lawrence F.
 see Moon, Franklin L., 1506
 see Yi, Tianyi, 1504
 see Yi, Tianyi, 1505
- Kaiser, Mark J.
 The Gulf of Mexico Decommissioning Market, 369
 Offshore Decommissioning Cost Estimation in the Gulf of Mexico, 313
- Kaku, Vikram J.
 Evaluation of Mixing Energy in Laboratory Flasks used for Dispersant Effectiveness Testing, 593
- Kakuturu, Sai
 Evaluation of the Parameters Influencing Self-Healing in Earth Dams, 860
 Mechanistic Model for Self-Healing of Core Cracks in Earth Dams, 861
- Kaledhonkar, M. J.
 Regional Salinity Modeling for Conjunctive Water Use Planning in Kheri Command, 1207
- Kalin, Latif
 Hydrologic Modeling of an Eastern Pennsylvania Watershed with NEXRAD and Rain Gauge Data, 1128
- Kalkan, Erol
 Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures, 1609
- Kam, T. Y.
 see Chen, C. M., 560
 see Lee, C. R., 521
- Kamali, Mohammad T.
 Three-Dimensional Free Vibration Analysis of Multi-phase Piezocomposite Structures, 524
- Kamara, John M.
 see Al-Ghassani, Ahmed M., 340
- Kamat, Vineet R.
 see Ismail, Ihab A., 1438
- Kambham, K.
 see Kura, B., 768
- Kamprath, Michael T.
 Corridor Protection through NEPA, 1420
- Kan, Raymond G.
 see Nedović-Budić, Zorica, 1795
- Kandil, Amr
 MACROS: Multiobjective Automated Construction Resource Optimization System, 1252
 Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects, 337
- Kang, Guyoung
 see Chen, Shyi-Tien, 678
- Kang, Yaohu
 see Wang, Qing-Gai, 1755
- Kang, Yi-Lung
 see Chung, Weihao, 998
- Kanit, Recep
 see Atımtay, Ergin, P.E., 1986
- Kannah, T. Rajesh
 Experimental Study on the Hydrodynamics of a Floating, Production, Storage, and Offloading System, 1861
- Kantar, Cetin
 Citric Acid Enhanced Remediation of Soils Contaminated with Uranium by Soil Flushing and Soil Washing, 609
- Kanto, Antti
 see Ruotoistenmäki, Antti, 1742
- Kanvinde, A. M.
 Void Growth Model and Stress Modified Critical Strain Model to Predict Ductile Fracture in Structural Steels, 1627
 see Chi, W.-M., 1455
- Kao, C. M.
 see Yeh, T. Y., 1963
- Kapadia, Chirag
 see Bolton, James, 745
- Karacabeyli, Erol
 see Mi, Hongyong, 1452
 see Varoglu, Erol, 1578
- Karaesmen, İtir Z.
 see Akinci, Burcu, 401
- Karakas, Murat, P.E.
 see Zekioglu, Atilla, P.E., 2040
- Karbhari, Vistasp M.
 see Cheng, Lijuan, 150
 see Matta, Fabio, 214

AUTHOR INDEX

Kennedy

- Kareem, A.
see Kijewski-Correa, T., 543
- Kareem, Ahsan
see Chen, Xinzong, 551
see Kijewski-Correa, Tracy, 1588
- Kareem, A.
see Kijewski-Correa, T., 1561
- Kargahi, Mohsen
Structural Weight Optimization of Frames Using Tabu Search. I: Optimization Procedure, 1622
Structural Weight Optimization of Frames Using Tabu Search. II: Evaluation and Seismic Performance, 1623
- Karlsson, Robert
Material-Related Aspects of Asphalt Recycling — State-of-the-Art, 1270
- Karner, Dawn A.
see Xagorarakis, Irene, 692
- Karney, Bryan W.
see Jung, Bong Seog, 1805
- Karunaratna, S. A. S. A.
see Lin, Pengzhi, 553
- Kashani, Israel
Base Station Establishment using Multiple Global Positioning Satellite Stations and Free Net Approach, 1644
- Kashyap, Deepak
see Shalabey, M. E. E., 1103
- Kassab, Moustafa
Conflict Resolution in Construction Disputes using the Graph Model, 391
- Kassem, A. A.
see Mohapatra, P. K., 952
- Katafygiotis, Lambros
Domain Decomposition Method for Calculating the Failure Probability of Linear Dynamic Systems Subjected to Gaussian Stochastic Loads, 482
- Kaub, Brian C., P.E.
see Anderson, Lee L., Jr., P.E., 1915
- Kaul, S. N.
see Rao, N. N., 624
- Kavazanjian, Edward, Jr.
see Matasovic, Neven, 819
see Zekkos, Dimitrios, 893
- Kavvas, M. L.
Watershed Environmental Hydrology Model: Environmental Module and Its Application to a California Watershed, 1099
- Kavvas, M. Levent
see Kim, Sangdan, 1073
see Kim, Sangdan, 1079
- Kawabata, Toshinori
Behavior of Buried Flexible Pipe under High Fills and Design Implications, 903
- Kawakami, Hideji
see Chang, Heui-Yung, 1592
- Kawanura, Ikuro
see Sana, Ahmad, 1040
- Kawanishi, Naoki
see Goto, Yoshiaki, 1630
- Kawasaki, T.
see Yoshihara, H., 1271
- Kawashima, Kazuhiko
see Sakai, Junichi, 1449
- Kaya, Abidin, P.E.
see Yukselen, Yeliz, 865
- Kayen, R. E.
see Moss, R. E. S., 873
- Kayen, Robert E.
see Cetin, K. Onder, 10
- Kayhanian, Masoud
see Khan, Sabbir, 629
see Kim, Lee-Hyung, 711
see Li, Yingxia, 695
- Kayser, Caroline R.
Characterization of Material Properties of HPS-485W (70 W) TMCP for Bridge Girder Applications, 114
- Kear, T. P.
see Eisinger, D. S., 1756
- Keceli, Fuat
see Akinci, Burcu, 401
- Keedwell, Edward
Novel Cellular Automata Approach to Optimal Water Distribution Network Design, 250
- Keegan, Mike
see Lyons, Terrence, 639
- Keeler, Bruce J., P.E.
see Hahn, Daniel E., P.E., 2024
- Keiller, Alan P.
see Ledbetter, Stephen R., 98
- Keller, Thomas
Multifunctional Hybrid GFRP/Steel Joint for Concrete Slab Structures, 244
- Kells, James A.
see McLeod, Shaun M., 750
- Kelly, John
see Yu, Ann T. W., 404
- Kemp, A. R.
see Dundu, M., 1559
- Kenis, William
see Sun, Lu, 505
- Kennedy, Christopher
see Zhang, Lei, 1072
- Kennedy, Christopher A.
see Norman, Jonathan, 1772
- Kennedy, Lonnie G.
see Everett, Jess W., P.E., 1968
- Kennedy, Matthew G.
Three-Dimensional Modeling for Estimation of Hydraulic Retention Time in a Reservoir, 710

Kennedy, Matthew J.

Development of Tensile Hoop Stress during Horizontal Directional Drilling through Sand, 48

Kennedy, P.

Progress of Statutory Adjudication as a Means of Resolving Disputes in Construction in the United Kingdom, 1426

Kenney, Thomas M., P.E., ed.

see Crandell, Jay H., P.E., ed., 2083

Kermani, Abdy

Racking Performance of Structural Insulated Panels, 1617

Keshari, Ashok K.

see Kaledhonkar, M. J., 1207

Keskin, M. Erol

Artificial Neural Network Models of Daily Pan Evaporation, 1077

Kewalramani, Manish A.

see Gupta, Rajiv, 1311

Khalaf, Fouad M.

Using Crushed Clay Brick as Coarse Aggregate in Concrete, 1319

Khalafallah, Ahmed

Minimizing Construction-Related Hazards in Airport Expansion Projects, 344

Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards, 1257

Khan, Liaquat A.

Validation of a Three-Dimensional Computational Fluid Dynamics Model of a Contact Tank, 1005

Khan, Mohammad Sajjad

Application of Support Vector Machine in Lake Water Level Prediction, 1091

Khan, Sabbir

Oil and Grease Measurement in Highway Runoff — Sampling Time and Event Mean Concentrations, 629

Khanal, Nabin

Distribution System Contamination Events: Exposure, Influence, and Sensitivity, 1830

Khandelwal, Kapil

see Chao, Shih-Ho, 1556

Khare, Pradnya

see Rao, N. N., 624

Kharif, C.

see Ioualalen, M., 1870

Khattab, Magdy M.

see El-Dakhkhni, Wael W., 1635

Khayat, K. H.

see Assaad, J. J., 1353

Khedr, Safwan A.

Response of Air-Entrained Concrete to Severe Chemical Aggression, 1262

Khire, Ritesh A.

Study of a Honeycomb-Type Rigidified Inflatable Structure for Housing, 1603

Khodadoust, Amid P.

Cyclodextrin-Enhanced Electrokinetic Remediation of Soils Contaminated with 2,4-Dinitrotoluene, 718

see Lei, Li, 626

Khoo, H. A.

Microvoid Damage Model with Material Dilation for Ductile Fracture, 546

Khor, Eng Hui

see Juang, C. Hsein, 809

Khu, Soon-Thiam

see Keedwell, Edward, 250

Khudeira, Soliman

Assessment of Potential Seismic Damage to Residential Unreinforced Masonry Buildings in Northern Illinois, 1979

Kijewski-Correa, T.

Efficacy of Hilbert and Wavelet Transforms for Time-Frequency Analysis, 543

Experimental Verification and Full-Scale Deployment of Global Positioning System to Monitor the Dynamic Response of Tall Buildings, 1561

Kijewski-Correa, Tracy

Validating Wind-Induced Response of Tall Buildings: Synopsis of the Chicago Full-Scale Monitoring Program, 1588

Kilic, Havvanur

see Guler, Gokmil, 1645

Kilpatrick, John

see Kijewski-Correa, Tracy, 1588

Kim, Changmo, Ph.D. Candidate

see Lee, Eul-Bum, P.E., P.M.P., 1752

Kim, Changwan

Human-Assisted Obstacle Avoidance System using 3D Workspace Modeling for Construction Equipment Operation, 262

Kim, Deokjoo

Postbuckling of Moderately Thick Imperfect Rings under External Pressure, 569

Kim, Do-Gyeong

Modeling Crash Types: New Insights into the Effects of Covariates on Crashes at Rural Intersections, 1692

Kim, Dong-Woo

see Mu, Bin, 196

Kim, Eui Sung

see Oh, Byung Hwan, 545

Kim, Eungcheol

see Jha, Manoj K., P.E., 1708

Kim, G. D.

see Kwon, Y. B., 1498

Kim, J. W.

Finite-Element Computation of Wave-Structure Interaction between Steep Stokes Waves and Vertical Cylinders, 1886

Kim, Jae Young

see Moon, Hee Sun, 709

AUTHOR INDEX

Klock

Kim, Jeewoong

Removal of Lead from Contaminated Water and Clay Soil using a Biosurfactant, 687

Kim, Jinkoo

Displacement-Based Design of Supplemental Dampers for Seismic Retrofit of a Framed Structure, 1526

Kim, Jin-Tae

Estimation of Uniform Delay of Permitted Left Turns from Exclusive Turn Lanes, 1741

Kim, Jong-Soon

see Acharya, Nirmal Kumar, 1383

Kim, Juwhan

Application of Internally Damped Shearbeam Model to Analysis of Buildings under Earthquakes: Robust Procedure for Quick Evaluation of Seismic Performance, 1550

Kim, Kwang Soo

see Ahn, Chang Hoon, 701

Kim, Kwang W.

Estimation of RAP's Binder Viscosity using GPC without Binder Recovery, 1324

Kim, Kwang Yeon

see Parra-Montesinos, Gustavo J., 1571

Kim, Kyongae

see Kim, Kwang W., 1324

Kim, Kyungsik

Brace Forces in Steel Box Girders with Single Diagonal Lateral Bracing Systems, 1558

Interaction of Top Lateral and Internal Bracing Systems in Tub Girders, 1598

Kim, Lee-Hyung

Estimating Pollutant Mass Accumulation on Highways during Dry Periods, 711

Kim, Moon-Young

Spatial Stability of Shear Deformable Nonsymmetric Thin-Walled Curved Beams: A Centroid-Shear Center Formulation, 573

Kim, Nam-II

see Kim, Moon-Young, 573

Kim, Sangdan

Generalized Fick's Law and Fractional ADE for Pollution Transport in a River: Detailed Derivation, 1079

Stochastic Point Rainfall Modeling for Correlated Rain Cell Intensity and Duration, 1073

Kim, Sung-Bo

see Kim, Moon-Young, 573

Kim, Tae H.

Exploratory Map Animation for Post-Event Analysis of Wildfire Protective Action Recommendations, 1922

Kim, Tae-Wan

see Foutch, Douglas A., 165

Kim, Tae-Woong

Nonparametric Approach for Bivariate Drought Characterization using Palmer Drought Index, 1084

Kim, Wooyoung

see Yu, Jung-Ho, 398

Kim, Yongjoo

Development of Mix Design Procedure for Cold In-Place Recycling with Foamed Asphalt, 1274

Kim, Young-Jin

see Collick, Amy S., 731

Kim, Young-Oh

Combining Rainfall-Runoff Model Outputs for Improving Ensemble Streamflow Prediction, 1130

Kimura, Shinya

see Takahashi, Naoki, 834

Kingsnorth, Oliver

see Gourvenec, Susan, 27

Kircher, Charles A.

HAZUS Earthquake Loss Estimation Methods, 1927

Kirkil, Gokhan

see Ettema, Robert, 934

Kirsch, Brian R.

Equilibrium Approach to Integrating Regional Surface Water Treatment and Limited Groundwater Pumping Capacity, 1847

Kish, Suzanne M.

Long-Term Dynamic Modeling Approach to Quantifying Attached Algal Growth and Associated Impacts on Dissolved Oxygen in the Lower Truckee River, Nevada, 739

Kishen, J. M. Chandra

see Sain, Trisha, 469

Kitamura, Yasushi

see Nakaza, Eizo, 1858

Kitinoja, Jari-Pekka

see Perttula, Pia, 371

Kitou, Erasmia

Transportation Choices and Air Pollution Effects of Telework, 1149

Kiyohara, Daisuke

see Mizumura, Kazumasa, 1085

Kiziltas, Semiha

see Akinci, Burcu, 401

Kjeldsen, Peter

see Lai, Keith C. K., 605

see Lai, Keith C. K., 1966

see Lai, Keith C. K., 1967

Klakegg, Ole Jonny

see Lædre, Ola, 356

Kleinhaus, Maarten G.

see Hesseslink, Annika W., 945

Klenke, Marcus

see Leung, Christopher K. Y., 484

Klingler, Mac

see Tatum, C. B., 386

Klingler, Mac G.

see Tatum, C. B., P.E., 385

Klöck, Wolfgang

see Aicher, Simon, 507

- Kmet, Stanislav**
Nonlinear Analytical Solution for Cable Truss, 446
- Knapton, J.**
see Wilkinson, S. M., 104
- Knight, Donald W.**
see Tang, Xiaonan, 939
- Knight, Zachary**
see McCuen, Richard H., 1132
see McCuen, Richard H., 1171
- Ko, Ick Hwan**
see Kim, Young-Oh, 1130
- Ko, Man-Gi**
see Jo, Ji-Seong, 515
- Kober, Aaron, P.E.**
Modifying Merchants Bridge, 2022
- Koch, James E., P.E.**
see Gransberg, Douglas D., P.E., 2081
- Kochly, M.**
see Kijewski-Correa, T., 1561
- Kochly, Michael**
see Kijewski-Correa, Tracy, 1588
- Kockelman, Kara M., P.E.**
see Juri, Natalia Ruiz, 1720
- Kodkani, Shilpa S.**
see Davalos, Julio F., 1346
- Koehn, Enno "Ed", P.E.**
Engineering Experience and Competitions Implement
ABET Criteria, 1419
- Koenig, Larry**
see Suarez, Monica P., 770
- Koganemaru, Kenichi**
see Shimizu, Yoshihisa, 801
- Koh, C. G.**
Condensed Model Identification and Recovery for
Structural Damage Assessment, 1638
- Kohar, Eugene S.**
see Wrenn, Brian A., 591
- Koide, Yasuhiro**
see Sakano, Masahiro, 171
- Kokorudova, Zuzana**
see Kmet, Stanislav, 446
- Kolera, Bopanna T.**
Intelligent Utility Locating Tool for Excavators, 379
- Kollár, László**
see Vigh, Attila, 132
- Kolton, O.**
see Navon, R., 360
- Kolyshkin, A. A.**
see Nixon, W., 1025
- Köngeter, Jürgen**
see Rubin, Hillel, 589
- Konrad, J. M.**
Limit-State Curve of Base-Course Material and Its Rel-
evance for Resilient Modulus Testing, 795
- Konyha, Kenneth D.**
see Wan, Yongshan, 1835
- Koo, Han-Mo**
see Cho, Yon-Ho, 1760
- Koolzare, Azadeh**
Compilation of a Map of Recent Vertical Crustal
Movements in Eastern Canada using Geographic
Information System, 1663
- Kopp, Gregory A.**
Database-Assisted Design of Low-Rise Buildings:
Aerodynamic Considerations for a Practical Interpo-
lation Scheme, 1529
- Korany, Yasser**
Rehabilitation of Masonry Walls using Unobtrusive
FRP Techniques for Enhanced Out-of-Plane Seismic
Resistance, 209
- Korhonen, Pekka**
see Perttula, Pia, 371
- Korkmaz, Serdar**
Seepage from a Rectangular Ditch to the Groundwater
Table, 1192
- Korkut, Eyüp Nafiz**
Wastewater Treatment with Biomass Attached to
Porous Geotextile Baffles, 614
- Korman, Thomas M., P.E.**
Prototype Tool for Mechanical, Electrical, and Plumb-
ing Coordination, 249
- Korving, Hans**
Statistical Modeling of the Serviceability of Sewage
Pumps, 1039
- Koskela, Lauri**
see Rischmoller, Leonardo, 1243
- Koskiahio, Jari**
see Schmid, Bernhard H., 1090
- Kothari, D. P.**
see Singh, Shikha, 420
- Kotsakis, Christopher**
Overparameterized Least-Squares Adjustment with
Linear Models for Geodetic and Surveying Applica-
tions, 1659
- Kouhy, Reza**
see Qi-Oquili, Osama, 427
- Koutsourelakis, Phaedon S.**
Simulation of Multidimensional Binary Random Fields
with Application to Modeling of Two-Phase Ran-
dom Media, 496
- Kouwen, N.**
see Bingeman, A. K., 1117
- Kovac, V., P.E.**
see Shang, J. Q., P.E., 1277
- Kovoor, Gicy M.**
see Nandagiri, Lakshman, 1190
- Kracman, D. R.**
Stochastic Optimization of the Highland Lakes System
in Texas, 1807

AUTHOR INDEX

Kumar

- Kramer, Kristian**
Development of Air Concentration on Chute Spillways, 1023
- Kranc, S. C.**
see Sagüés, A. A., 161
- Kraus, Rudolph N.**
see Naik, Tarun R., 1347
- Kreymborg, Leo R.**
see Hu, Henry H., 1080
- Krick, William**
see Xagorarakis, Irene, 692
- Krishna, M. Sri**
see Chakrabarti, Subrata K., P.E., 1869
- Krishnan, J. Murali**
Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, 497
Thermomechanical Framework for the Constitutive Modeling of Asphalt Concrete, 15
- Krishnan, Swaminathan**
Modeling Steel Frame Buildings in Three Dimensions. I: Panel Zone and Plastic Hinge Beam Elements, 470
Modeling Steel Frame Buildings in Three Dimensions. II: Elastofiber Beam Element and Examples, 471
- Krishnappan, Bommanna G.**
see He, Cheng, 944
- Krishnaswamy, N. R.**
see Latha, G. Madhavi, 14
- Krizek, Raymond J.**
see Schwarz, Lois G., 1284
- Krou, Jean F.**
Experimental Data and Theoretical Analysis of Particle Removal Efficiency in a Novel Hydraulic Separation Unit, 733
- Krüger, Susanne**
Modeling 3D Supercritical Flow with Extended Shallow-Water Approach, 1024
- Kruntcheva, Mariana R.**
Properties of Asphalt Concrete Layer Interfaces, 1312
- Kruse, Jamie B.**
see De Silva, Dakshina G., 1924
- Kruse, Jamie Brown**
see Bin, Okmyung, 1936
- Kruszyna, M.**
Influence of Pedestrians' Entry Process on Pedestrian Delays at Signal-Controlled Crosswalks, 1757
- Krzyk, Mario**
see Četina, Matjaž, 943
- Ku, Young**
Ozonation of 2-Chlorophenol in Aqueous Solutions with a Packed Contactor, 775
- Kubo, Naritaka**
see Odai, Samuel Nii, 951
- Kudella, M.**
Large-Scale Experiments on Pore Pressure Generation underneath a Caisson Breakwater, 1884
see de Groot, M. B., 1885
- Kuder, Katherine G.**
New Method to Evaluate the Nailing Performance of Extruded High-Performance Fiber-Reinforced Cementitious Composites for Residential Applications, 1309
- Kudsi, T.**
see Harajli, M. H., 229
- Kuennen, Steven T.**
see Pocock, James B., 325
- Kuhn, Kenneth**
see Madanat, Samer, 1156
- Kuhnle, R. A.**
Lateral Variations in Suspended Sediment Concentration over Dunes, 1066
- Kuhnle, Roger**
see Li, Hua, 982
- Kulasingam, R.**
Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand, 7
see Malvick, Erik J., 897
- Kullman, Rachel**
see Oad, Ramchand, 1229
- Kumar, Abhilekh**
see Jha, Madan K., 1135
- Kumar, D. Nagesh**
Optimal Reservoir Operation for Irrigation of Multiple Crops using Genetic Algorithms, 1178
- Kumar, G. Suresh**
Spatial Moment Analysis for One-Dimensional Non-isothermal Quartz Transport and Dissolution/Precipitation in Fracture-Matrix System, 1106
see Sekhar, M., 1104
- Kumar, Jyanti**
Stress Reduction Coefficient and Amplification Factor for Seismic Response of Ground, 26
- Kumar, P. Suresh**
Wave Interaction with a Flexible Porous Breakwater in a Two-Layer Fluid, 540
- Kumar, Pradeep**
see Gali, Veeresh S., 759
see Prashanth, S., 637
- Kumar, Praveen**
Comparative Study of Different Subbase Materials, 1326
- Kumar, Rakesh**
see Naik, Tarun R., 1347
see Sahoo, Bhabagrahi, 1124
- Kumar, Ram**
see Pandey, A. K., 1576
- Kumar, Satander**
see Rao, V. V. L. Kanta, 1379
- Kumar, Sudhir**
see Rao, S. V. N., 1118
- Kumar, Sujay V.**
Optimal Design of Redundant Water Distribution Networks using a Cluster of Workstations, 1840

Kumara, M. W.

Evaluation of Early Strength Requirement of Concrete for Slab Replacement using Accelerated Pavement Testing, 1749

Kumaran, Kumar

see Mukhopadhyaya, Phalguni, 101

Kumathe, S. S.

see Mishra, P. K., 1196

Kunde, M. C.

Effects of Pier and Deck Flexibility on the Seismic Response of Isolated Bridges, 115

Kunnath, Sashi K.

see Kalkan, Erol, 1609

Kuo, Chen-Ming

Three-Dimensional Pavement Analysis with Nonlinear Subgrade Materials, 1321

Kupferle, Margaret J., P.E.

Electrolytic Treatment of Azo Dye Wastewaters: Impact of Matrix Chloride Content, 656

Kura, B.

Total PM Emission Factors for Steel Grit Used in Dry Abrasive Blasting, 768

Kurama, Yahya C.

Experimental Evaluation of Posttensioned Hybrid Coupled Wall Subassemblages, 1538

see Shen, Qiang, 1539

Kurtović-Folić, Nadja

see Radivojević, Ana, 1341

Kurup, Pradeep U., P.E.

Electronic Nose — Membrane Interface Probe for Geoenvironmental Site Characterization, 882

Prediction of Soil Composition from CPT Data using General Regression Neural Network, 272

Kutay, M. Emin

Analysis of Factors Affecting Strain Distribution in Geosynthetics, 777

Kutter, Bruce L.

see Kulasingam, R., 7

see Malvick, Erik J., 897

Kuźniar, Krystyna

Neural Networks and Principal Component Analysis for Identification of Building Natural Periods, 279

Kwasniewski, Leslaw

Experimental Evaluation of Dynamic Effects for a Selected Highway Bridge, 1391

Kwigizile, Valerian

see Mussa, Renatus, 1693

Kwok, Kenny C. S.

see Burton, Melissa D., 1468

Kwon, Dae-Kun

see Kijewski-Correa, Tracy, 1588

Kwon, Seokjoon

see Feng, Wenguo, 615

Kwon, Y. B.

Experiments of Cold-Formed Steel Connections and Portal Frames, 1498

Kwon, Yun Han

see Park, Hyo Seon, 1625

Kyoung, J. H.

see Kim, J. W., 1886

La Motta, Enrique J.

see Boltz, Joshua P., 655

Laabs, Walter

see Lee, Ming S., 1790

Labadie, John W.

see Rieker, Jeffrey D., 1816

see Wan, Yongshan, 1835

LaBoube, Roger A., P.E.

see Bae, Sang-Wook, 87

Labuz, J. F.

see Fakhimi, A., 31

Labuz, Joseph F.

see Bentler, Joseph G., 875

Lacidogna, Giuseppe

see Carpinteri, Alberto, 1605

Lackey, Thomas

see Benmokrane, Brahim, 126

Lackner, Roman

see Pichler, Christian, 1534

Ladd, Brian E., P.E.

see Ciancia, Andrew J., P.E., 1985

Lade, Poul V., ed.

Geomechanics II — Testing, Modeling, and Simulation, 2069

Laefer, Debra F.

Evacuation Route Selection Based on Tree-Based Hazards using Light Detection and Ranging and GIS, 1695

Lai, C. H.

Simulation of Lead Ions Adsorption onto the Iron-Coated Medium: Dependent on Temperature and pH, 1942

Lai, Carlo G.

see Presti, Diego C. F. Lo, 800

Lai, Han

Chromium Redox Chemistry in Drinking Water Systems, 694

Lai, Keith C. K.

Field Monitoring of a Permeable Reactive Barrier for Removal of Chlorinated Organics, 605

Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. I: Field Study of Tracer Movement, 1966

Natural Gradient Tracer Test for a Permeable Reactive Barrier in Denmark. II: Spatial Moments Analysis and Dispersion of Conservative Tracer, 1967

see Irene, M. C. Lo, ed., 2097

Lai, Natalia T. N.

see Chan, Andy T., 444

Lai, Peter

see Hu, Zhihong, 820

AUTHOR INDEX

Laufer

- Lai, Sheng-Yao**
Logistic Regression Model for Evaluating Soil Liquefaction Probability using CPT Data, 843
- Lai, Xiaorong**
see Liu, Ying, 1751
- Laird, Carl D.**
Mixed-Integer Approach for Obtaining Unique Solutions in Source Inversion of Water Networks, 1826
- Lakota, Gregory J., P.E.**
A Good Move, 2037
- Lakshmanan, N.**
see Peter, J. Annie, 1305
see Sasmal, Saptarshi, 1392
- Lam, E. S. S.**
see Yu, T., 233
- Lam, F.**
see Leijten, A. J. M., 1568
- Lam, I.**
see Serrette, R., 1497
- Lam, K. C.**
see Tang, C. M., 397
- Lam, K. M.**
Global Behaviors of a Round Buoyant Jet in a Counterflow, 991
- Lam, L.**
see Teng, J. G., 9
- Lam, Lik**
see Teng, J. G., 198
- Lam, Manfred C. M.**
see Hui, Eddie C. M., 1780
- Lam, S. S. E.**
see Li, C. S., 1610
- Lam, Try**
New Approach to Mission Design Based on the Fundamental Equations of Motion, 65
- Laman, J.**
see Nevling, D., 120
- Lamanna, Anthony J.**
see Lok, Mustafa S., 1393
- Lambert, Laurence, P.E.**
see Wolshon, Brian, P.E., 1766
- Lambert, Martin**
see Vítkovský, John, 1001
- Lambert, Martin F.**
see Vítkovský, John P., 1000
- Lamberti, Alberto**
see Zanuttigh, Barbara, 1856
- Lan, André, P.E.**
Validation of Shoring Made of HDPE Pipe or CGS Pipe Normally Used for Culverts and Sewers, 1974
- Lancelot, Laurent**
Failure and Dilatancy Properties of Sand at Relatively Low Stresses, 582
- Landers, Jay**
Moving On, 2018
- Landis, Eric N.**
Toward a Physical Damage Variable for Concrete, 512
- Landolfo, Raffaele**
Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests, 1495
see Corte, Gaetano Della, 1494
- Lane, W. L.**
see Salas, J. D., 1177
- Lang, Timothy E.**
see Hahn, Daniel E., P.E., 2024
- Lange, Clifford R.**
Commercial Odor-Reducing Agents for Minimizing the Odor Potential of Asphalt Binders, 645
- Lange, Jorg, ed.**
see Leon, Roberto T., ed., 2057
- Langford, David**
see Yi, Kyoo-Jin, 351
- Languell, Jennifer L.**
see Minchin, R. Edward, Jr., 1242
- Lansey, Kevin**
see Yoo, H. Harold, 674
- Lansey, Kevin E.**
see Miller, Jennifer H., 732
- Laosiriphong, Krit**
Theoretical and Experimental Analysis of GFRP Bridge Deck under Temperature Gradient, 153
- Lapinski, Anthony R.**
Lean Processes for Sustainable Project Delivery, 395
- Larkin, Tam**
Reliability of Shallow Foundations Subjected to Multidirectional Seismic Loading, 842
- Larouche, Bruno**
see Lavallée, Stéphane, 1808
- Larson, Kyle H.**
see Rasheed, Hayder A., 231
- Larson, Magnus**
see Camenen, Benoit, 1048
- Larson, Steven L.**
see Hwang, Sangchul, 610
- Lasdon, L. S.**
see Kracman, D. R., 1807
- Lasseigne, Mark, P.E.**
see Kober, Aaron, P.E., 2022
- Laterza, Michelangelo**
see Braga, Franco, 1577
- Latha, G. Madhavi**
Experimental and Theoretical Investigations on Geocell-Supported Embankments, 14
- Lau, Sim-Lin**
see Khan, Sabbir, 629
see Li, Yingxia, 695
- Laufer, Alexander**
see Telem, Dory, 403
- New Life for Onondaga Lake, 2014**

Laughton, Chris, P.E.

see Bruen, Michael P., 2004

Lauzon, Robert G.

Ambient Vibration Monitoring of a Highway Bridge Undergoing a Destructive Test, 163

Lav, A. Hilmi

see Goktepe, A. Burak, 287

Lavallée, Stéphane

Monitoring Snow-Cover Depletion by Coupling Satellite Imagery with a Distributed Snowmelt Model, 1808

Lavania, Amit

Effect of Metallic Iron Concentration on End-Product Distribution during Metallic Iron-Assisted Autotrophic Denitrification, 712

Lavé, Jérôme

see Attal, Mikael, 994

Lavelle, Francis M.

see Vickery, Peter J., 1931

Law, S. S.

Structural Damage Detection from Wavelet Coefficient Sensitivity with Model Errors, 547

Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity, 442

see Bu, J. Q., 579

see Lu, Z. R., 544

Lawrence, Gregory A.

see Fisher, Timothy S. R., 640

Lawrence, Michael

see Scawthorn, Charles, 1929

Lazarovitch, N.

Soil Hydraulic Properties Affecting Discharge Uniformity of Gravity-Fed Subsurface Drip Irrigation Systems, 1225

Lædre, Ola

Procurement Routes in Public Building and Construction Projects, 356

Leal, João Gouveia Aparício Bento

Dam-Break Wave-Front Celerity, 938

Leavesley, George

see Frevert, Donald, 1174

LeBlanc, Michel

see Chaallal, Omar, 189

LeBoeuf, Denis, P.E.

see Lan, André, P.E., 1974

LeBoeuf, E. J., P.E.

see Baranowski, T. M., 1829

Lecampion, Brice

Identification of Poroelastic Constants of "Tight" Rocks from Laboratory Tests, 33

Lecce, Maura

Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation, 1488

Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design, 1489

Lechman, Jeremy

Hysteresis of Matric Suction and Capillary Stress in Monodisperse Disk-Shaped Particles, 490

Lecina, S.

Model for the Simulation of Water Flows in Irrigation Districts. I: Description, 1199

Model for the Simulation of Water Flows in Irrigation Districts. II: Application, 1200

Lecote, Robert

see Lavallée, Stéphane, 1808

Ledbetter, Stephen R.

Structural Use of Glass, 98

Lee, C. F.

see Pradhan, B., 36

Lee, C. R.

System Identification of Partially Restrained Composite Plates using Measured Natural Frequencies, 521

Lee, C. T.

see Seracino, R., 1460

Lee, Chi-King

see Lie, Seng-Tjhen, 1475

see Lie, Seng-Tjhen, 1476

Lee, Chung-Kung

see Lin, Kuen-Song, 1956

Lee, Dae Sung

see Elsworth, Derek, 915

Lee, Der-Horng

see Zheng, Weizhong, 1675

Lee, Dong-Eun

Automated Statistical Analysis in Stochastic Project Scheduling Simulation, 315

Construction Business Automation System, 296

Total Quality Performance of Design/Build Firms using Quality Function Deployment, 292

Lee, Duu-Jong

see Chen, Liang-Chuan, 756

see Show, Kuan-Yeow, 1267

Lee, Eul-Bum

Fast-Track Urban Freeway Rehabilitation with 55-H Weekend Closures: I-710 Long Beach Case Study, 334

Lee, Eul-Bum, P.E., P.M.P.

Implementation of Automated Travel-Time Information and Public Reaction on Urban Highway Rehabilitation, 1752

Lee, Hojung

see Lee, Eul-Bum, 334

Lee, Hong-Yuan

Quantitative Estimation of Reservoir Sedimentation from Three Typhoon Events, 1109

Lee, Hosin "David"

see Kim, Yongjoo, 1274

Lee, Hyun-Soo

see Yu, Jung-Ho, 398

Lee, In-Won

see Jo, Ji-Seong, 515

AUTHOR INDEX

Leong

- Lee, J. H. W.
see Jayawardena, A. W., 1070
see Lam, K. M., 991
- Lee, Jong Seh
see Wang, Xingzhe, 476
- Lee, Jong-Seok
Downstream Hydraulic Geometry of Alluvial Channels, 1067
Electromagnetic Wave Surface Velocimetry, 946
- Lee, Joseph H. W.
see Yu, Daeyoung, 1027
- Lee, K. W.
see Jung, Chang H., 741
- Lee, K. Wayne, P.E., ed.
Asphalt Mix Design and Construction: Past, Present, and Future, 2050
- Lee, Kenneth
see Wrenn, Brian A., 591
- Lee, Kevin Z. Z.
see Wu, Jonathan T. H., 855
- Lee, Kihak
Seismic Evaluation of Steel Moment Frame Buildings Designed using Different *R*-Values, 1583
- Lee, Kwan Tun
Bridge Blockage and Overbank Flow Simulations using HEC-RAS in the Keelung River during the 2001 Nari Typhoon, 963
- Lee, Kwanghun
see Lee, Seunghak, 632
- Lee, M. S.
see Yeh, T. Y., 1963
- Lee, Marcus M. K.
Design Equation for Offshore Overlap Tubular K-Joints under In-Plane Bending, 1545
- Lee, Ming S.
Modeling Network Traffic for Planning Applications in a Small Community, 1790
- Lee, P. K. K.
see Yang, J., 779
- Lee, Sang-Beom
see Cho, Young-Jun, 1422
- Lee, Sang-Hoon
see Matthews, Benjamin, 1259
- Lee, SangHyun
Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects, 333
Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects, 273
- Lee, Sangsoo
Actuated Signal Operations of Congested Diamond Interchanges, 1750
- Lee, Seunghak
Simultaneous Removal of Cd and Cr(VI) using Fe-Loaded Zeolite, 632
- Lee, Seung-hyun
see Ellis, Ralph D., Jr., 319
- Lee, Sung C.
see Yoo, Chai H., 1595
- Lee, Vincent W.
Antiplane (SH) Waves Diffraction by a Semicircular Cylindrical Hill Revisited: An Improved Analytic Wave Series Solution, 550
- Lee, W. Y.
see Lam, K. M., 991
- Lee, Young-Dai
see Acharya, Nirmal Kumar, 1383
- Lee, Yusin
see Cheng, Juey-Fu, 1764
- Léger, Pierre
Structural Stability of Concrete Gravity Dams Strengthened by Rockfill Buttressing: Hydrostatic Load, 926
- Lehane, B. M.
see McCabe, B. A., 814
- Lehtelä, Jouni
see Perttula, Pia, 371
- Lei, Li
Bioavailability Prediction of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Sediment by Mild Extractions, 626
- Lei, W.
see Baskaran, A., 100
- Leijten, A. J. M.
Reversed-Cyclic Behavior of a Novel Heavy Timber Tube Connection, 1568
- Lembo, Arthur J., Jr.
see Davidson, Rachel A., 425
- Lennon, J. M.
Particle Image Velocity Measurements of Undular and Hydraulic Jumps, 1060
- Lenzari, Akhrawat
Debonding Strength of Steel Beams Strengthened with CFRP Plates, 195
- León, Arturo S.
Godunov-Type Solutions for Transient Flows in Sewers, 1010
- Leon, Evangelia
Accounting for Soil Aging When Assessing Liquefaction Potential, 811
- Leon, Roberto T., ed.
Composite Construction in Steel and Concrete V, 2057
see Moon, Franklin L., 1506
see Yi, Tianyi, 1504
see Yi, Tianyi, 1505
- Leone, M.
see Aiello, M. A., 1340
- Leong, E.-C.
see Yang, H., 1105
- Leong, Eng-Choon
see Thu, Trinh Minh, 815

- Leoni, Graziano
 see Dezi, Luigino, 1573
- Lertworawanich, Ponlathep
 see Pietrucha, Martin T., P.E., 1758
- Leshchinsky, Dov
 see Han, Jie, P.E., 909
- Leshem, Ehud N.
 Electrochemical Oxidation and Ozonation for Textile Wastewater Reuse, 619
- Leskinen, Timo
 see Perttula, Pia, 371
- Leslie, Della
 see Shimada, Masashi, 961
- Leštan, Domen
 see Finžgar, Neža, 740
- Leštari, Wahyu
 Dynamic Characteristics and Effective Stiffness Properties of Honeycomb Composite Sandwich Structures for Highway Bridge Applications, 203
- Lettenmaier, Dennis P.
 see McGuire, Marketa, 1811
- Letterman, Raymond D., P.E.
 see Anand, Gunwant Singh, 634
- Lettieri, M.
 see Frigione, M., 1344
- Leu, Liang-Jenq
 Strut-and-Tie Design Methodology for Three-Dimensional Reinforced Concrete Structures, 1531
- Leu, Mark R.
 see Marques, Guilherme F., 1849
- Leukart, Michael
 Identification and Interpretation of Microplane Material Laws, 465
- Leung, A. Y. T.
 see Tang, C. M., 397
- Leung, C. E.
 see Ong, D. E. L., 780
- Leung, C. F.
 Pile Behavior Due to Excavation-Induced Soil Movement in Clay. II: Collapsed Wall, 781
- Leung, Christopher K. Y.
 Determination of Nonlinear Softening Behavior at FRP Composite/Concrete Interface, 484
 Empirical Approach for Determining Ultimate FRP Strain in FRP-Strengthened Concrete Beams, 201
 Energy-Based Modeling Approach for Debonding of FRP Plate from Concrete Substrate, 492
 Three-Parameter Model for Debonding of FRP Plate from Concrete Substrate, 485
- Leung, Susanna M.
 Air/Water Oxygen Transfer in a Biological Aerated Filter, 603
- Levantesi, Caterina
 see Louarn, Essyllt, 705
- Levasseur, Béatrice
 Metals Removal from Municipal Waste Incinerator Fly Ashes and Reuse of Treated Leachates, 654
- Levenson, Verne
 see Singh, Vijay P., 1175
- Levinson, David M.
 see Chen, Wenling, 1410
- Levy, Guy J.
 see Graber, Ellen R., 1282
- Li, Binwei
 see Zhou, Ping, 597
- Li, C. S.
 Shaking Table Test of a 1:20 Scale High-Rise Building with a Transfer Plate System, 1610
- Li, Chaokui
 see Zhou, Guoqing, 1782
- Li, D. Q.
 see Zhang, L. M., 835
- Li, Heng
 see Cheng, Eddie W. L., 370
 see Zhang, Hong, 259
 see Zhang, Hong, 314
 see Zhang, Hong, 413
- Li, Hongyi
 see Kwasniewski, Leslaw, 1391
- Li, Hua
 Parallel Walls as an Abutment Scour Countermeasure, 982
- Li, Huajun
 Modal Strain Energy Decomposition Method for Damage Localization in 3D Frame Structures, 533
 see Hu, Sau-Lon James, 477
- Li, J.
 Forecasting Project Status by using Fuzzy Logic, 406
- Li, James Y.
 see Behera, Pradeep K., 1801
- Li, Jian
 see Zhang, Yunfeng, 275
- Li, Long-Hai
 see Wang, Kun, 1937
- Li, Min-Tang
 Assignment of Seasonal Factor Categories to Urban Coverage Count Stations using a Fuzzy Decision Tree, 1735
- Li, Qian-Rong
 see Zhang, Shu-Juan, 755
- Li, Qingming
 see Ma, Guowei, 461
- Li, Rong
 see Teng, J. G., 198
- Li, Ruimin
 Evaluation of Speed-Based Travel Time Estimation Models, 1721
- Li, Sherman
 see Pserng, H. Ping, 327
- Li, X. Y.
 see Law, S. S., 547

AUTHOR INDEX

Lin

- Li, Y. S.
Chebyshev Finite-Spectral Method for 1D Bous-sinesq-Type Equations, 1876
- Li, Yadong, P.E.
TCLP Heavy Metal Leaching of Personal Computer Components, 638
- Li, Yanfeng
see Briaud, Jean-Louis, 788
- Li, Yi
Continuous Cometabolic Transformation of 4-Chloro-phenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor, 617
- Li, Yingxia
Dynamic Characteristics of Particle Size Distribution in Highway Runoff: Implications for Settling Tank Design, 695
- Li, Zhong-Xian
Application of Cement-Based Piezoelectric Sensors for Monitoring Traffic Flows, 1724
- Li, Zongjin
see Li, Zhong-Xian, 1724
see Wei, Xiaosheng, 1272
see Zhou, Xiangming, 450
- Liang, Jianhai
see Shi, Xing, 92
- Liang, Jianwen
see Lee, Vincent W., 550
- Liang, L.
see Kavvas, M. L., 1099
- Liang, Robert
Quality Control Method for Pile Driving, 879
see Yang, Ke, 910
- Liang, Shih-Hsun
see Valdes, Julio R., 858
- Liang, Xuemei
see Attanayake, Upul, 156
- Liao, Jen-Cheng
see Lin, San-Shyan, 923
- Liao, Jyh-Jong
see Wang, Cheng-Der, 12
- Liao, Ying-Po
see Leu, Liang-Jeng, 1531
- Liapi, Katherine A.
see Kim, Changwan, 262
- Liau, Chi-Chou
see Lin, Deng-Fong, 853
- Lichtwardt, Mark, P.E.
see Fischer, Paul, P.E., 2043
- Lie, Seng-Tjhen
Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. I: Experimental, 1475
Static Strength of Cracked Square Hollow Section T Joints under Axial Loads. II: Numerical, 1476
- Liedl, R.
see Wöhling, Th., 1206
- Lien, C. Y.
Treatment of Polishing Wastewater from Semi-conductor Manufacturer by Dispersed Air Flotation, 588
- Lien, Hsing-Lung
Oxidative and Reductive Degradation of Mixed Contaminants by Bifunctional Aluminum, 1944
- Likos, William J.
see Lu, Ning, 791
- Lim, Yun-Mook
see Kim, Juwhan, 1550
- Lima, D. C.
see Mendonça, A. A., 1276
- Limpeteeprakarn, Terdkiat
see Arockiasamy, Madasamy, 1366
- Lin, Bin
see Babcock, Roger, Jr., 696
- Lin, Chang
Laboratory Observation of Solitary Wave Propagating over a Submerged Rectangular Dike, 488
- Lin, Chia-Huei
see Chao, Keh-Ping, 657
- Lin, Chi-Chang
Optimal H_∞ Output Feedback Control Systems with Time Delay, 549
- Lin, Ching-Long
see Yue, Wusi, 996
- Lin, Chiou-Liang
Effect of Pressure Fluctuations on the Quality of Fluidization and on the Generation of Particulate Matters during Incineration, 708
- Lin, Deng-Fong
Factors Affecting Portable Falling Weight Deflectometer Measurements, 853
- Lin, Guoming, P.E., ed.
see Han, Jie, P.E., ed., 2045
- Lin, Han
Single Hardening Elasto-Plastic Model for Kaolin Clay with Loading-History-Dependent Plastic Potential Function, 17
Strain Localization in Combined Axial-Torsional Testing on Kaolin Clay, 489
- Lin, Huan
Coupled Surge-Heave Motions of a Moored System. I: Model Calibration and Parametric Study, 501
see Yim, Solomon C. S., 502
- Lin, Hung-Ta
see Ju, Shen-Haw, 825
- Lin, Jason
see Vickery, Peter J., 1930
see Vickery, Peter J., 1931
- Lin, Jen-Jia
Shifts in Activity Centers along the Corridor of the Blue Subway Line in Taipei, 1773
- Lin, Jin-Ping
see Zhu, Jian-Hang, 722

- Lin, Jyh-Dong**
see Lin, Deng-Fong, 853
- Lin, Kuen-Song**
 Gasification of Aromatic Volatile Organic Compounds Generated from Petroleum and Refinery Industries with Syngas Recycling, 1956
- Lin, Liain-Shin**
see Blatchley, Ernest R., III, 742
- Lin, Mu-Xing**
see Ku, Young, 775
- Lin, Pei-Wei**
see Jou, Yow-Jen, 1794
- Lin, Pengzhi**
 Turbulent Boundary Layer Flows above a Porous Surface Subject to Flow Injection, 553
- Lin, Ping-Sien**
see Lai, Sheng-Yao, 843
- Lin, San-Shyan**
 Lateral Response Evaluation of Single Piles Using Inclinator Data, 923
- Lin, Shiou-Gwo**
 Single Epoch Kinematic GPS Positioning Technique in Short Baseline, 1647
- Lin, T. T.**
 Microanalytical Characterizations of Eroded and Slaked Mudstone Proposed as Landfill Liner Material, 1953
see Lai, C. H., 1942
- Lin, T. Y.**
see Weng, Chih-Huang, 1959
- Lin, Tzu-Kang**
 Active Control with Optical Fiber Sensors and Neural Networks. I: Theoretical Analysis, 1566
 Active Control with Optical Fiber Sensors and Neural Networks. II: Experimental Verification, 1567
- Lin, Ying-Tien**
see Lee, Hong-Yuan, 1109
- Lin, Yu-Chin**
see Chen, Hung-Ming, 260
- Lin, Yung-Bin**
see Lin, Tzu-Kang, 1566
see Lin, Tzu-Kang, 1567
- Lin, Yun-Huin**
 Simultaneous Removal of Carbon and Nitrogen from Swine Wastewater using an Immobilized-Cell Reactor, 630
- Linden, Karl G.**
see Bohrerova, Zuzana, 760
see Jin, Shanshan, 693
see Mamane, Hadas, 666
see Mamane, Hadas, 667
- Lindner, Angela S.**
see McLean, Amanda, 1945
- Ling, Florence Yean Yng**
 Determinants of International Architectural, Engineering, and Construction Firms' Project Success in China, 309
- Incorporating Contractual Incentives to Facilitate Relational Contracting, 1412
- Ling, Hoe I.**
 Unified Sand Model Based on the Critical State and Generalized Plasticity, 580
see Kawabata, Toshinori, 903
- Lingard, Helen**
see Dainty, Andrew R. J., 1250
- Lings, Martin L.**
see Dietz, Matthew S., 914
- Linker, Lewis C.**
see Wang, Ping, 625
- Lins, Harry**
see Frevert, Donald, 1174
- Linzell, D.**
see Nevling, D., 120
- Linzell, Daniel G.**
see Kayser, Caroline R., 114
- Liong, Shie-Yui**
see Atiquzzaman, Md., 1813
- Liou, Jin-Cheng**
see Chang, Hsien-Kuo, 1857
- Lise, Kim Robert**
see Meloyssund, Vivian, 1618
- Liston, R.**
see Shoop, S., 857
- Litrice, X.**
 Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. I: Theory, 1204
 Tuning of Robust Distant Downstream PI Controllers for an Irrigation Canal Pool. II: Implementation Issues, 1205
- Little, D. N.**
see Krishnan, J. Murali, 497
- Little, Dallas**
see Dessouky, Samer, 451
see Masad, Sanaa, 1698
- Little, Dallas N.**
see Krishnan, J. Murali, 15
- Little, Dallas N., P.E.**
see Hefer, Arno W., 1350
- Little, John C.**
see Leung, Susanna M., 603
- Litwick, Howard S.**
 Development of a Simple Phosphorus Model for a Large Urban Watershed: A Case Study, 642
- Liu, Bin**
see Fang, Hongwei, 1053
- Liu, Chia-Nan**
 Mapping Liquefaction Potential Considering Spatial Correlations of CPT Measurements, 886
- Liu, Dajin**
 Design of Circular Base Plates, 1970
- Liu, Dawei**
see Okazaki, Taichiro, 1570

AUTHOR INDEX

Loh

- Liu, Feng
see Guo, Bing, 1572
- Liu, Hai-Jun
see Wang, Qing-Gai, 1185
- Liu, I. S. T.
Moment Redistribution in FRP and Steel-Plated Reinforced Concrete Beams, 200
Tests on the Ductility of Reinforced Concrete Beams Retrofitted with FRP and Steel Near-Surface Mounted Plates, 199
- Liu, J. C.
see Lien, C. Y., 588
- Liu, Judy
see Chung, Wonseok, 122
- Liu, L. Y.
see Su, Y. Y., 410
- Liu, Liang Y.
see East, E. William, 416
- Liu, Min
Genetic Algorithm Based Construction-Conscious Minimum Weight Design of Seismic Steel Moment-Resisting Frames, 1444
Optimizing Bridge Network Maintenance Management under Uncertainty with Conflicting Criteria: Life-Cycle Maintenance, Failure, and User Costs, 1620
- Liu, Ming
Probability-Based Bridge Network Performance Evaluation, 167
- Liu, Minnan
Mean Flow and Turbulence Structure in Vertical Slot Fishways, 1007
- Liu, Nan
Optimal Siting of Fire Stations using GIS and ANT Algorithm, 286
- Liu, Ning
Influence of Nonplastic Fines on Shear Wave Velocity-Based Assessment of Liquefaction, 878
- Liu, Pan
see Peng, Dingzhi, 1087
- Liu, R.
see Zheng, Y. H., 1865
- Liu, Rong
Determination of Stress Intensity Factors for a Cracked Shell under Bending with Improved Shell Theories, 60
- Liu, Shi-Ping
see Wang, Qing-Gai, 1185
- Liu, Songyu
see Hong, Zhenshun, 806
- Liu, Ting
see Peng, Dingzhi, 1087
- Liu, Wen-Cheng
see Hsu, Ming-Hsi, 992
- Liu, X. L.
see Huang, Z., 109
- Liu, Xiaoli
see Abichou, Tarek, 919
- Liu, Yi
see Dawe, J. L., 1511
- Liu, Yigang
see Grubb, Dennis G., 830
- Liu, Ying
Two-Level Integrated Optimization System for Planning of Emergency Evacuation, 1751
- Liu, Yu-Cheng
see Huang, Jin H., 526
- Liu, Yumin
see Ma, Guowei, 461
- Liu, Zhen-Shu
Control of PAHs from Incineration by Activated Carbon Fibers, 650
- Liu, Zhi-Ping
see Zhao, Can-Hua, 937
- Livadiotti, Emmanuel
see Tricaud, Etienne, 2042
- Lizundia, Bret
Regenesis, 2029
- Llenín, José A.
Construction Management of a Small-Scale Accelerated Pavement Testing Facility, 1388
- Lloyd, B. J.
see Guganesarajah, K., 1036
- Lo, D. C.
Numerical Simulation of Solitary Waves using Velocity-Vorticity Formulation of Navier-Stokes Equations, 456
see Tsai, C. C., 467
- Lo, Irene M. C.
see Hu, Jing, 679
see Hu, L. M., 1943
see Lai, Keith C. K., 605
see Lai, Keith C. K., 1966
see Lai, Keith C. K., 1967
see Tsang, Daniel C. W., 1958
see Zhang, Weihua, 730
- Lo, Tommy Y.
Construction Delays in Hong Kong Civil Engineering Projects, 352
- Loáiciga, Hugo A.
Probability Density Functions in the Analysis of Hydraulic Conductivity Data, 1116
- Lobo-Guerrero, Sebastian
Application of Weibull Statistics to the Tensile Strength of Rock Aggregates, 850
Visualization of Crushing Evolution in Granular Materials under Compression using DEM, 32
see Vallejo, Luis E., 56
- Loehlein, Werner C., P.E., ed.
see Zimbelman, Darell, P.E., ed., 2078
- Loh, Kai-Chee
see Li, Yi, 617
- Loh, P. K.
see Chua, D. K. H., 284

Loizeaux, Mark

Progressive Collapse — An Implosion Contractor's Stock in Trade, 1405

Lolozos, A.

Evaluation of Foamed Asphalt Cold In-Place Pavement Recycling Using Nondestructive Techniques, 1770

Lok, Mustafa S.

Study of Turkish Bridge Standards Involving a Reinforced Concrete Arch Bridge, 1393

Lollar, Barbara Sherwood

see Béranger, Sandra C., 681

Long, Cameron M.

see Coulibaly, Kapo M., 1095

Long, J.

see Eisinger, D. S., 1756

López, Isabel

Mechanical Properties and Environmental Assessment of Mortars Containing Metallic Oxides, 706

Lopez, Maria

see Cole, Thomas A., 145

Lopez, Ramon

see Touran, Ali, 373

Lorentz, Juliana F.

see Melo, André L. O., 1652

Lorenzo, Glen A.

Fundamental Characteristics of Cement-Admixed Clay in Deep Mixing, 1279

Louarn, Essyllt

Modeling Substrate Interactions during Aerobic Biodegradation of Mixtures of Vinyl Chloride and Ethene, 705

Loukili, Ahmed

see Turcry, Philippe, 1266

Loulizi, Amara

Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains, 1725

Lourenço, Paulo

see Milani, Gabriele, 1602

Love, Nancy G.

see Leung, Susanna M., 603
see Yi, Taewoo, 757

Low, B. K.

see Xu, B., 911

Low, Sui-Pheng

see Chong, Wai-Kiong, 1386

Lowe, David J.

Predicting Construction Cost using Multiple Regression Techniques, 362

Lowry, Gregory V.

see Murphy, Paul, 688

Lu, M.-C.

Effect of Chloride Ions on the Dechlorination of Hexachlorobenzene in the Presence of Zero-Valent Iron, 1965

Lu, Ming

Application Framework for Mapping and Simulation of Waste Handling Processes in Construction, 408

Lu, Ning, ed.

Advances in Unsaturated Soil, Seepage, and Environmental Geotechnics, 2046

Section Stress Characteristic Curve for Unsaturated Soil, 791

see Lechman, Jeremy, 490

Lu, Shuan-Chai

see Hsu, Tung-Wen, 480

Lu, Wei-Cheng

see Wu, Jong-Cheng, 1448

Lu, Wei-Sheung

see Shen, Li-Yin, 329

Lu, Z. R.

Force Identification Based on Sensitivity in Time Domain, 544

see Law, S. S., 547

Lucko, Gunnar

Statistical Considerations for Predicting Residual Value of Heavy Equipment, 359

Lui, Roger

see Pyzocha, Michael J., 703

Luk, Herman C. Y.

see Leung, Christopher K. Y., 201

see Leung, Christopher K. Y., 484

Luketina, David

see Sahoo, Goloka Behari, 682

Lum, K. M.

see Qiu, Y. F., 1768

Luna, Ronaldo, ed.

Soil and Rock Behavior and Modeling, 2088

Lund, Jay R.

Drought Storage Allocation Rules for Surface Reservoir Systems, 1842

see Alcubilla, Roberto Garcia, 1845

see Marques, Guilherme F., 1849

see Rosenberg, David E., 1803

Lund, Ryan

see Alampalli, Sreenivas, 176

Luo, Hao

see Lee, Vincent W., 550

Lupoi, Alessio

see Lupoi, Giorgio, 473

Lupoi, Giorgio

Seismic Fragility Analysis of Structural Systems, 473

Lutenegger, A. J., P.E.

see Cerato, A. B., 916

Lyles, Richard W., P.E.

see Salama, Hassan K., 1747

Lyn, Dennis A.

see Blatchley, Ernest R., III, 742

AUTHOR INDEX

Makimattila

- Lynett, Patrick J.**
Nearshore Wave Modeling with High-Order Bous-sinesq-Type Equations, 1887
- Lyon, Richard E.**
see Giancaspro, James, 1303
- Lyons, D. J.**
see Gugescharajah, K., 1036
- Lyons, Terrence**
Evaluation of Contaminant Resuspension Potential dur-ing Cap Placement at Two Dissimilar Sites, 639
- Lytton, R. L.**
see Oh, Jeong-Ho, 1711
- Ma, Guowei**
Numerical Simulations of Dynamic Instability of Elas-tic-Plastic Beams, 461
see Luna, Ronaldo, ed., 2088
- Ma, Jun**
see Petersen, Elijah J., 627
- Ma, June**
see Davidson, Rachel A., 425
- Ma, Tian-Wei**
Sampled Data Feedback-Feedforward Control of Struc-tures with Time Delays, 1549
- Ma, X.**
see Xiong, G. J., *tu.edu.cn*, 215
- Macbeth, Tamzen W.**
see Dettmers, Dana L., 1952
- MacDougall, Colin**
Fatigue Damage of Steel Bridges Due to Dynamic Vehicle Loads, 135
Mechanical Model for Unbonded Seven-Wire Tendon with Single Broken Wire, 576
- Macfarlane, Eric C., P.E.**
see O'Donnell, Brian, P.E., 2023
- Machdar, Izarul**
see Tandukar, Madan, 601
- Machemehl, Randy B.**
see Fan, Wei, 1667
see Fan, Wei, 1676
- Machotka, Radovan**
see Vondrak, Jiri, 1650
- Mackechnie, J. R.**
see Heiyantuduwa, R., 1359
see Wareham, D. G., 1294
- Mackie, K. R.**
Fourway: Graphical Tool for Performance-Based Earthquake Engineering, 1564
- Mackiewicz, P.**
see Kruszyna, M., 1757
- MacLean, Heather L.**
see Norman, Jonathan, 1772
- Madan, Alok**
General Approach for Training Back-Propagation Neu-ral Networks in Vibration Control of Multidegree-of-Freedom Structures, 269
- Madanat, Samer**
Adaptive Optimization and Systematic Probing of Infrastructure System Maintenance Policies under Model Uncertainty, 1156
- Madden, Edward Tristram**
see Aydilek, Ahmet H., 869
- Madeja, R.**
see Moujaes, S., 428
- Madhavan, Narain**
see Rivero, Jesús A. Cacho, 670
- Madhyannapu, Raja S.**
see Puppala, Anand J., 808
- Madrigal, José Andrés**
see Boltz, Joshua P., 655
- Madsen, Ole Secher**
see Tajima, Yoshimitsu, 1896
- Maeno, Shiro**
see Bierawski, Lechoslaw G., 1892
- Magar, Victor S.**
see Lyons, Terrence, 639
- Maghrebi, Mahmoud F.**
New Method for Estimation of Discharge, 1035
- Mahalel, David**
see Hollander, Yaron, 1778
- Mahboub, Kamyar C., P.E., ed.**
see Lee, K. Wayne, P.E., ed., 2050
see Willett, David A., 1673
- Maheswari, J. Uma**
Application of Dependency Structure Matrix for Activ-ity Sequencing in Concurrent Engineering Projects, 336
- Mahfood, Robert F., P.E.**
see Masters, Kathryn, P.E., 2028
- Mahin, Stephen A.**
see Rodgers, Janise E., 1447
see Stojadinovic, Bozidar, 1446
- Mahmood, Talat, P.E.**
Activated Sludge Process Modification for Sludge Yield Reduction using Pulp and Paper Wastewater, 715
- Mahmoud, M.**
see Xu, P., 1941
- Maidment, David R.**
see Whiteaker, Timothy L., 1074
- Maji, Arup**
see Campbell, Douglas, 75
- Maji, Arup K., ed.**
see Malla, Ramesh B., ed., 2061
- Majone, Mauro**
see Louarn, Essyllt, 705
- Mak, Chin Long**
Algorithm Fusion for Detecting Incidents on Singa-pore's Central Expressway, 1696
- Mäkimattila, Simo**
see Perttula, Pia, 371

- Makinia, J.**
Comparison of Two Model Concepts for Simulation of Nitrogen Removal at a Full-Scale Biological Nutrient Removal Pilot Plant, 636
- Makris, N.**
see Sasani, M., 522
- Malachowski, Jerzy**
see Kwasniewski, Leslaw, 1391
- Maleki, S.**
Orthogonal Effects in Seismic Analysis of Skewed Bridges, 116
- Malerba, Pier Giorgio**
see Biondini, Fabio, 1521
- Malhotra, Praveen K.**
Return Period of Recorded Ground Motion, 1522
- Malinsky, Laurent**
see Lecampion, Brice, 33
- Malite, Maximiliano**
see Chodrau, Gustavo Monteiro de Barros, 1503
- Malla, Ramesh B., ed.**
Earth & Space 2006: Engineering, Construction, and Operations in Challenging Environment, 2061
- Malvick, Erik J.**
Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope, 897
see Kulasingam, R., 7
- Mamane, Hadas**
Impact of Particle Aggregated Microbes on UV Disinfection. I: Evaluation of Spore — Clay Aggregates and Suspended Spores, 666
Impact of Particle Aggregated Microbes on UV Disinfection. II: Proper Absorbance Measurement for UV Fluence, 667
see Bohrerova, Zuzana, 760
- Mamedov, B. A.**
Evaluation of Oxygen Sag Equation for Second-Order Biochemical Oxygen Demand Decay, 766
- Mammino, Armando**
Renovation of the 17th-Century Ponte Lungo Bridge in Chioggia, Italy, 105
- Manariotis, Ioannis D.**
Anaerobic Filter Treatment of Municipal Wastewater: Biosolids Behavior, 585
- Mandal, Siddhwartha**
Modeling of Prestressed Concrete-Filled Circular Composite Tubes Subjected to Bending and Axial Loads, 1483
- Mander, J. B.**
see Xiao, Y., 119
- Mandolini, Alessandro**
see de Sanctis, Luca, 927
- Manes, Costantino**
Application of UVP within Porous Beds, 1028
- Manfredi, G.**
see Prota, A., 210
- Manfredi, Gaetano**
see Pecce, Marisa, 207
- Mang, Herbert A.**
see Pichler, Bernhard, 913
see Pichler, Christian, 1534
- Manning, Fred**
see Shafizadeh, Kevan, 1677
- Mannini, Claudio**
see Morano, Salvatore Giacomo, 108
- Mannocchi, Francesco**
Optimal Reservoir Operations for Irrigation using a Three Spatial Scales Approach, 1179
- Manoharan, N.**
see Griffiths, D. V., 54
- Manoharan, P. Devadas**
see Peter, J. Annie, 1305
- Manso, Pedro A.**
Discussion of "Effect of Jet Air Content on Plunge Pool Scour", 3
- Manuel, Lance**
see Chung, Hsin-Yang, 134
- Mao, Weihua**
see Zhu, Yimin, 268
- Mao, Xian-Zhong**
see Wei, Yong, 1866
- Maqsoud, A.**
see Mbonimpa, M., 881
- Mara, D. Duncan**
Aerated Rock Filters for Enhanced Ammonia and Fecal Coliform Removal from Facultative Pond Effluents, 646
- Maragakis, E. Manos**
see Saiidi, M. Said, 152
- Marasteanu, Mihai O.**
Rheological Characterization of Asphalt Emulsions Residues, 1304
- Marcari, G.**
see Prota, A., 210
- Marchand, Kirk A., P.E.**
see Ruth, Peter, 1401
- Marcus, Silvian, P.E.**
see Sullivan, Bart, P.E., 2035
- Marcy, Ken**
see Lyons, Terrence, 639
- Marengo, H.**
Case Study: Dam Safety during Construction, Lessons of the Overtopping Diversion Works at Aguamilpa Dam, 1045
- Marino, Gennaro G., P.E.**
Protection Measures against Mine Subsidence Taken at a Building Site, 1278
- Mariño, Miguel A.**
see Chu, Xuefeng, 606
- Marinucci, A.**
see Bradshaw, A. S., 1895

AUTHOR INDEX

Matthews

- Marion, Andrea**
Effects of Velocity Gradients and Secondary Flow on the Dispersion of Solutes in a Meandering Channel, 1061
- Marjanishvili, Shalva, P.E.**
Comparison of Various Procedures for Progressive Collapse Analysis, 1402
- Markus, Momcilo**
Predictability of Annual Sediment Loads based on Flood Events, 1108
- Marques, Guilherme F.**
Economically Driven Simulation of Regional Water Systems: Friant-Kern, California, 1849
- Marquette, Andre**
see Murphy, Paul, 688
- Marr, W. Allen**
On Globalization, 1908
- Marr, W. Allen, P.E.**
Using Our Best Judgment, 2030
- Marra, William A.**
Heat Flow through Soils and Effects on Thermal Storage Cycle in High-Mass Structures, 64
- Marsalek, Jiri**
see He, Cheng, 944
- Martin, Derrel L.**
see Irmak, Suat, 1228
- Martin, G. R.**
see Xiao, Y., 119
- Martin, Joseph P.**
see Korkut, Eyüp Nafiz, 614
- Martin-Benito, José María Tarjuelo**
see Romero, José Nicolás Ortiz, 1214
- Martínez, Jesús Montero**
see Romero, José Nicolás Ortiz, 1214
- Martínez, Roberto Simón**
see Romero, José Nicolás Ortiz, 1214
- Martino, J.**
see Guo, R., 778
- Martinuzzi, R.**
see Baddour, R. E., 967
- Martin-Vide, J. P.**
Disturbance Caused by Bed Sills on the Slopes of Steep Streams, 1052
- Marulanda, Camilo**
see Hashash, Youssef M. A., P.E., 872
- Marxhausen, Peter D., P.E.**
Buckling of Conventionally Sheathed Stud Walls, 1514
- Masad, Eyad**
see Dessouky, Samer, 451
see Krishnan, J. Murali, 15
see Masad, Sanaa, 1698
- Masad, Sanaa**
Analysis of Flexible Pavement Response and Performance using Isotropic and Anisotropic Material Properties, 1698
- Maschke, Ken**
Daniel W. Mead Prizes for Younger Members and Students: Ethically Understanding the Role of Computer Software in Engineering Calculation, 2002
- Mashahir, M. B.**
see Zarati, A. R., 947
- Maslia, Morris L.**
see Guan, Jiabao, 1827
- Mason, John M., Jr.**
see Donnell, Eric T., 1691
- Mason, Quint**
see Rushing, John F., 1394
- Mass, Clifford**
see Maurer, Edwin P., 1093
- Masson, Jean-Paul**
see Attal, Mikael, 994
- Massoudieh, Arash**
see Huang, Xinjiang, 702
- Masters, Kathryn, P.E.**
Defeating Delays, 2028
- Masud, Arif**
see Xia, Kaiping, 460
- Matasovic, Neven**
Seismic Response of a Composite Landfill Cover, 819
see Zekkos, Dimitrios, 893
- Matheu, E. E.**
see Singh, M. P., 1589
see Singh, M. P., 1590
- Mathew, Tom V.**
see Muralidhar, Bindhu, 1715
- Matott, L. Shawn**
see Bartelt-Hunt, Shannon L., 686
- Matsumoto, Mark R.**
see Yu, Xueyuan, 749
- Matsumoto, Takashi**
see Suthiwarapirak, Peerapong, 1532
- Matt, Howard**
see Filiatrault, André, 1467
- Matta, Alain**
see Abruzzo, John, 1404
- Matta, Fabio**
Acoustic Emission Damage Assessment of Steel/CFRP Bonds for Rehabilitation, 214
- Mattei, Norma J.**
see Higgs, C. Fred, III, 1418
- Matteo, Michelle**
Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment, 1815
- Matthews, Benjamin**
Addressing Security in Early Stages of Project Life Cycle, 1259
- Matthews, H. Scott**
see Bilec, Melissa, 1158

Matthys, S.

Stress - Strain Behavior of Large-Scale Circular Columns Confined with FRP Composites, 1450

Matzen, Vernon

see Wirgau, Scott, 271

Maurer, Edwin P.

Using Radar Data to Partition Precipitation into Rain and Snow in a Hydrologic Model, 1093

Maurin, Bernard

see Zhang, Li, 1580

Maurya, Nityanand Singh

Applicability of Equilibrium Isotherm Models for the Biosorptive Uptakes in Comparison to Activated Carbon-Based Adsorption, 764

May, Andrea L.

see Banik, Gouranga C., P.E., 1914

Maynard, Stephen T.

Evaluation of the Micromodel: An Extremely Small-Scale Movable Bed Model, 965

Mazumder, Anisur Rahman

Performance of Overburnt Distorted Bricks as Aggregates in Pavement Works, 1352

Mazzolani, Federico M.

see Corte, Gaetano Della, 1337

Mbonimpa, M.

Predictive Model for the Water Retention Curve of Deformable Clayey Soils, 881

McCabe, B. A.

Behavior of Axially Loaded Pile Groups Driven in Clayey Silt, 814

McCaffrey, Tim

see Rushing, John F., 1394

McCarl, Bruce A.

see Chen, Chi-Chung, 1836

McCarty, Kevin

Market Fresh, 2019

McConahey, Erin, P.E.

see Zekioglu, Atila, P.E., 2040

McCord, Mark R.

see Jiang, Zhuojun, 1719

McCue, Terrence Michael, P.E.

Contrasting the Benefits of Primary Clarification versus Fermentation in Activated Sludge Biological Nutrient Removal Systems, 720

McCuen, Richard H.

Evaluation of the Nash-Sutcliffe Efficiency Index, 1132

Fuzzy Analysis of Slope-Area Discharge Estimates, 1171

see Schneider, Lauren E., 1101

McDonald, Edward T.

see Lakota, Gregory J., P.E., 2037

McDonald, Eric V.

see Albright, William H., 906

McDonough, Kathleen M.

Microcosm Approach to Study Transport of Polychlorinated Biphenyls in Sediment, 676

McEnroe, Bruce M.

see Young, C. Bryan, 1092

McEwan, Ian

see Manes, Costantino, 1028

McGinn, A. J.

see O'Rourke, T. D., 868

McGuire, Marketa

Use of Satellite Data for Streamflow and Reservoir Storage Forecasts in the Snake River Basin, 1811

McGuire, Travis M.

see Newell, Charles J., P.E., 672

McKay, Alan

see Kish, Suzanne M., 739

McKenna, Sean A.

Impact of Sensor Detection Limits on Protecting Water Distribution Systems from Contamination Events, 1833

see Khanal, Nabin, 1830

McKinney, D. C.

see Kracman, D. R., 1807

McKinnie, Bryant

see Yazdani, Nur, P.E., 1362

McLaskey, Gregory

Nondestructive Dynamic Evaluation of a Concrete Reaction Wall - Numerical and Experimental Studies, 1389

McLean, Amanda

Development of a University Laboratory Chemical Inventory and Exchange Program, 1945

McLeod, Shaun M.

Urban Runoff Quality Characterization and Load Estimation in Saskatoon, Canada, 750

McMahon, T. A.

see Srikanthan, R., 1094

McMonigal, Dennis

see Bank, Lawrence C., 208

McNab, Walt W., Jr.

see Newell, Charles J., P.E., 672

McNeill, Laurie S.

see Lai, Han, 694

McShannon, J.

Gaining Retention and Achievement for Students Program: A Faculty Development Program, 1424

McVay, Michael

see Hu, Zhihong, 820

Meacham, Brian J., P.E.

see Johann, Matthew A., 1369

Mecchi, A. M.

see Frigione, M., 1344

Mecham, Gary D., P.E.

see Dettmers, Dana L., 1952

Medina, Josep

see Yepes, Victor, 1694

Medina, Martia

see Pacheco, Sadott, 621

AUTHOR INDEX

Meyer

- Medina, Victor F.
see Johnson, Billy E., 1960
- Medina, Victor F., P.E.
Column Study Simulating In Situ Bioremediation of
Perchlorate using Acetate as an Organic Substrate,
1950
- Meegoda, Jay N.
see Hu, L. M., 1943
- Meeroff, Daniel E.
Iron-Mediated Aeration: Evaluation of Energy-
Assisted Enhancement for In Situ Subsurface Reme-
diation, 683
- Megally, Sami
see Bozorgzadeh, Azadeh, 158
- Mehndiratta, H. C.
see Chandra, Satish, 1670
- Mehrabi, Armin B., P.E.
In-Service Evaluation of Cable-Stayed Bridges, Over-
view of Available Methods, and Findings, 175
- Mehrotra, Indu
see Gali, Veeresh S., 759
see Prashanth, S., 637
- Mehta, Kishor C., P.E.
see Phelan, R. Scott, P.E., 133
- Mel, Renwei
see Singh, Rajkeshar, 84
- Meier, Roger, ed.
see Huang, Baoshan, ed., 2079
- Meijers, P.
see de Groot, M. B., 1877
see de Groot, M. B., 1885
see Kudella, M., 1884
- Melchers, Robert E.
Recent Progress in the Modeling of Corrosion of Struc-
tural Steel Immersed in Seawaters, 1152
- Melhem, Hani
see Abudayyeh, Osama, P.E., 246
- Melo, André L. O.
Strategic Decision Analysis for Selection of Landfill
Sites, 1652
- Melo, J. F.
Forces on Plunge Pool Slabs: Influence of Joints Loca-
tion and Width, 936
- Melville, Bruce
Countermeasure Toe Protection at Spill-Through Abut-
ments, 956
Flow-Induced Failure of Cable-Tied Blocks, 964
Scour Countermeasures for Wing-Wall Abutments,
988
- Meløysund, Vivian
Increased Snow Loads and Wind Actions on Existing
Buildings: Reliability of the Norwegian Building
Stock, 1618
- Memari, Ali M.
see Getz, Daniel R., 86
- Menches, Cindy L., P.E.
Conceptual Planning Process for Electrical Construc-
tion, 417
Quantitative Measurement of Successful Performance
from the Project Manager's Perspective, 415
- Mendonça, A. A.
Stabilization of Arsenic-Bearing Sludges using Lime,
1276
- Mendonça, David
Impacts of the 2001 World Trade Center Attack on
New York City Critical Infrastructures, 1163
- Mendoza, Michael
see Minchin, R. Edward, Jr., 1258
- Meng, Jian
see Cao, Zhixian, 1041
see Cao, Zhixian, 1059
- Menon, Devdas
see Srinivas, S., 1767
- Menzemer, Craig C.
see Azzam, Diya, 1597
see Azzam, Diya, 1628
- Mercier, Guy
see Levasseur, Béatrice, 654
see Meunier, Nathalie, 660
- Merry, Scott M.
Effect of Gas on Pore Pressures in Wet Landfills, 829
- Mertz, Dennis
see Patrick, Michael D., 117
- Meslehe, Ehab A.
see Habib, Emad H., 979
- Meskouris, Konstantin
see Holler, Stefan, 1594
- Messac, Achille
see Khire, Ritesh A., 1603
- Messer, Carroll J.
see Lee, Sangsoo, 1750
- Messier, Danielle
see Morse, Brian, 184
see Morse, Brian, 185
- Messner, John I.
see El Wardani, Marwa A., 311
- Meunier, N.
see Brar, Satinder K., 1946
- Meunier, Nathalie
Heavy Metals Removal from Acidic and Saline Soil
Leachate using Either Electrochemical Coagulation
or Chemical Precipitation, 660
- Meyer, Michael D.
see Amekudzi, Adjo, 1776
see Amekudzi, Adjo, 1777
- Meyer, Steffen
see Singh, Vijay P., 1175
- Meyer, Susan
see Singh, Vijay P., 1175

- Meylan, Michael H.**
see Grotmaack, Rike, 1874
- Mi, Hongyong**
Racking Performance of Tall Unblocked Shear Walls, 1452
- Michaels, Paul, P.E.**
Relating Damping to Soil Permeability, 28
- Michallet, H.**
see Foray, P., 1882
- Michaud, David**
Methodology for Ranking the Elements of Water-Supply Networks, 1160
- Michell, Frank**
Case Study: Sediment Control at Water Intake for Large Thermal-Power Station on a Small River, 975
- Michelsen, Ari M.**
see Ward, Frank A., 1851
- Mifflin, Edward**
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Mihail, Darrell J.**
Bioremediation of Petroleum-Contaminated Soil using Composting, 1951
- Mikoš, Matjaž**
see Četina, Matjaž, 943
- Milani, Gabriele**
Homogenization Approach for the Limit Analysis of Out-of-Plane Loaded Masonry Walls, 1602
- Milcent, Frédéric**
see Descantes, Yannick, 1331
- Miller, Christopher M., P.E.**
see Hassan, Kazi Z. A., 767
- Miller, Gerald A., ed.**
Unsaturated Soils 2006, 2096
- Miller, Jennifer H.**
Nitrogen Transformations during Soil-Aquifer Treatment of Wastewater Effluent — Oxygen Effects in Field Studies, 732
- Miller, Jennifer H.**
see Yoo, H. Harold, 674
- Miller, John S.**
see Garber, Nicholas J., 1665
see Kamprath, Michael T., 1420
- Miller, John S., P.E.**
Borrowing Residential Trip Generation Rates, 1674
- Miller, Lindon**
see Beltaos, Spyros, 1056
- Miller, R.**
see Salem, O., 1980
- Miller, Thomas H.**
see Chansawat, Kasidit, 106
- Miller, William, Jr.**
see Sheppard, D. Max, 995
- Milligan, Jarrod H.**
Short- and Long-Term Effects of Element Costs and Failure Costs in *Pontis*, 166
- Mills, Julie E.**
see Pham, Maria M., 1502
- Minchin, R. Edward, Jr.**
Best Practices of Bridge System Management—A Synthesis, 1258
Case for Drug Testing of Constructoin Workers, 1242
see El-Mashaleh, Mohammad, 338
- Minkarah, I.**
see Salem, O., 1256
- Minor, Hans-Erwin**
see Kramer, Kristian, 1023
see Pagliara, Stefano, 976
see Pfister, Michael, 1014
see Zweifel, Andreas, 1888
- Minor, Joseph E., P.E.**
Design of Window Glass for Lateral Pressures, 95
- Minsker, Barbara S.**
see Babbar, Meghna, 1837
see Dawsey, Wesley J., 1825
see Espinoza, Felipe P., 278
- Miranda, E.**
Generalized Interstory Drift Spectrum, 1523
- Miranda, Eduardo**
Approximate Floor Acceleration Demands in Multistory Buildings. I: Formulation, 6
- Mirmiran, Amir**
see Zhu, Zhenyu, 139
see Zhu, Zhenyu, 224
- Mirza, S. Ali**
see Tikka, Timo K., 1477
see Tikka, Timo K., 1596
- Mishra, G. C.**
see Singh, A. K., 34
- Mishra, Govinda C.**
Earth Dam with Toe Drain on an Impervious Base, 50
- Mishra, P. K.**
Effectiveness of Bermuda Grass as Vegetative Cover in Grassed Waterway: A Simulated Study, 1196
- Mishra, S. K.**
see Jain, M. K., 1136
- Misra, D.**
see Sekhar, M., 1104
- Misra, K.**
see Brar, Satinder K., 1946
- Mitchell, Denis**
see Tremblay, Robert, 1375
- Mitchell, James K.**
see Liu, Ning, 878
- Mitri, Hani**
see Saad, Bassam, 1705
- Mittal, Atul Kumar**
see Maurya, Nityanand Singh, 764

AUTHOR INDEX

Morel

- Mizumura, Kazumasa
Analyses of Drought Flow in Recession Period, 1085
Analytical Solutions of Nonlinear Kinematic Wave Model, 1126
- Mizushima, Mitsuhiro
see Mizumura, Kazumasa, 1085
- Mo, Y. L.
Torsional Design of Hybrid Concrete Box Girders, 136
- Mobasher, B.
see Sharda, J., 62
- Modares, Mehdi
Natural Frequencies of a Structure with Bounded Uncertainty, 578
- Moelders, Nicholas
see Roy, Amitava, 1348
- Mofidi, Alexander A.
see Jin, Shanshan, 693
- Moghaddam, H.
More Efficient Seismic Loading for Multidegrees of Freedom Structures, 1604
- Mohamed, O.
see Abdul-Rahman, H., 300
- Mohamed, Osama A., P.E.
Progressive Collapse of Structures: Annotated Bibliography and Comparison of Codes and Standards, 1407
- Mohamed, Yasser
see Agbulos, Albert, 317
see Chung, Tae Hwan, 376
- Mohammadi, Jamshid
see Khudeira, Soliman, 1979
- Mohammadi, R. Karami
see Moghaddam, H., 1604
- Mohan, Prasanna K.
Biodegradability of Surfactants under Aerobic, Anoxic, and Anaerobic Conditions, 613
- Mohanty, Samrat
Postconstruction Environmental Monitoring of a Fly Ash-Based Road Subbase, 1993
Structural Performance Monitoring of an Unstabilized Fly Ash-Based Road Subbase, 1769
- Mohapatra, P. K.
Detection of Partial Blockage in Single Pipelines, 952
- Mohri, Yoshiyuki
see Kawabata, Toshinori, 203
- Mok, Fung Man
see Yiu, Tak Wing, 389
- Mokhtar, Ahmed
Educational Architecture-Oriented Software Linking Conceptual Design and Solar Intensity, 93
- Mola, Franco
see Giussani, Francesca, 1629
- Molenaar, Keith R.
see Shane, Jennifer S., 1906
- Molennar, Keith R., P.E.
see Gransberg, Douglas D., P.E., 2081
- Molin, Staffan
see Holmgren, Åke J., 1161
- Molina, J.
see Jácome, A., 727
- Möller, Gregory
see Newcombe, Remembrance L., 583
- Moloo, J.
see Mohapatra, P. K., 952
- Momber, A. W.
see Hu, X. G., 1065
- Monkman, Sean
Assessing the Carbonation Behavior of Cementitious Materials, 1351
- Montalto, Franco A.
see Collick, Amy S., 731
- Montanari, Alberto
see Brandimarte, Luigia, 980
- Montané, Camille
see Meunier, Nathalie, 660
- Montes, Felipe
see Valavala, Srinivas, 1098
- Montoya, Esneyder
Compression Field Modeling of Confined Concrete: Constitutive Models, 1318
- Moon, Franklin L.
Recommendations for Seismic Evaluation and Retrofit of Low-Rise URM Structures, 1506
see Yi, Tianyi, 1504
see Yi, Tianyi, 1505
- Moon, Hee Sun
Initial Alkalinity Requirement and Effect of Alkalinity Sources in Sulfur-Based Autotrophic Denitrification Barrier System, 709
- Moore, Ian D.
see Dhar, Ashutosh S., 1762
see Kennedy, Matthew J., 48
- Moore, J. R.
see Beavers, J. E., P.E., 377
- Moore, Stephen E.
see Hedrick, Kevin P., 1129
- Mora, Rodrigo
Computer Representation to Support Conceptual Structural Design within a Building Architectural Context, 253
- Moran, Kathryn
see Wang, Jian-Hua, 924
- Morano, Salvatore Giacomo
Preflex Beams: A Method of Calculation of Creep and Shrinkage Effects, 108
- Morcous, G.
Performance Prediction of Bridge Deck Systems using Markov Chains, 1378
- Morel, R.
see Proust, S., 1026

Morency, Maxim

Lightweight Shotcrete Canoe: Use of Viscosity Modifying Admixture and Acetone as Artificial Paste, 1300

Moreschi, L. M.

see Singh, M. P., 1589

see Singh, M. P., 1590

Morgan, Dudley R., ed.

Shotcrete for Underground Support X, 2086

Morgan, K.

see Gil, A. J., 82

Morgan, R.

see Bradshaw, A. S., 1895

Moriconi, Giacomo

see Corinaldesi, Valeria, 1336

Morley, Matthew

see Adam, Michael, 763

Morley, Matthew C., P.E.

see Young, Travis S. M., 1949

Morrish, Dave

see Kijewski-Correa, Tracy, 1588

Morrow, Agnes

see Medina, Victor F., P.E., 1950

Morse, Brian

Growth and Decay of Estuary Ice Cover, 184

Hydrodynamics of Mesotidal Estuary in Winter, 185

Morse, Timothy M.

see Thuman, Andrew J., P.E., 719

Morton, David P.

see Srour, Issam M., 402

Mory, M.

see Foray, P., 1882

Moselhi, O., P.E.

see Li, J., 406

Moselhi, Osama

see Sadeghpour, Farnaz, 302

Moser, David A.

see Watkins, David W., Jr., 1852

Moses, Jonathan P.

Evaluation of Effective Width and Distribution Factors for GFRP Bridge Decks Supported on Steel Girders, 143

Mosqueda, Gilberto

see Stojadinovic, Bozidar, 1446

Moss, R. E. S.

CPT-Based Probabilistic and Deterministic Assessment of in Situ Seismic Soil Liquefaction Potential, 873

Normalizing the CPT for Overburden Stress, 812

Moss, Robert E. S.

see Cetin, K. Onder, 10

Mostafa, Anirban

Relationship between Housing Affordability and Economic Development in Mainland China — Case of Shanghai, 1779

Mota, Carlos

Critical Review of Deflection Formulas for FRP-RC Members, 206

Motro, Reni

see Zhang, Li, 1580

Mottaghi, Alireza

see Samani, Hossein M. V., 981

Mottram, J. T.

see Evernden, M. C., 1342

Mouhoubi, Said

see Chazallon, C., 40

Moujaes, S.

Effect of Envelope on Residential Cooling Load Coupled with Use of Solar/Photovoltaic Panels, 428

Moujaes, S. F.

Three-Dimensional CFD Predictions and Experimental Comparison of Pressure Drop of Some Common Pipe Fittings in Turbulent Flow, 426

Moussa, Mohamed

Decision Tree Modeling Using Integrated Multilevel Stochastic Networks, 412

Moyano, David C., P.E.

Past Perfect, 1996

Msaad, Y.

Analyses of Heated Concrete Spalling due to Restrained Thermal Dilation: Application to the "Chunnel" Fire, 552

Mu, Bin

FEA of Complex Bridge System with FRP Composite Deck, 196

Mu, Edward B.

see Kuder, Katherine G., 1309

Muchemedzi, Reuben

see Atalah, Alan, P.E., 1434

Muchuruza, Victor

see Mussa, Renatus, P.E., 1740

Muhanna, Rafi L.

see Modares, Mehdi, 578

Mukherjee, Amlan

see Rojas, Eddy M., 261

Mukhopadhyaya, Phalguni

Application of Hygrothermal Modeling Tool to Assess Moisture Response of Exterior Walls, 101

Mukunoki, Toshifumi

see Rowe, R. Kerry, 920

Muliana, Anastasia H.

see Haj-Ali, Rami, 577

Mullen, Robert L.

see Modares, Mehdi, 578

Mullens, Michael A., P.E.

Structural Insulated Panels: Impact on the Residential Construction Process, 366

Mullins, Gray

Predicting End Bearing Capacity of Post-Grouted Drilled Shaft in Cohesionless Soils, 822

AUTHOR INDEX

Nanda

- Mullur, Anoop A.**
see Khire, Ritesh A., 1603
- Multon, Stéphane**
 Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction, 1317
- Muralidhar, Bindhu**
 Prototype Time-Space Diary Design and Administration for a Developing Country, 1715
- Muralikrishna, G.**
see Baidya, D. K., 789
- Murnane, Richard J.**
 Catastrophe Risk Models for Wildfires in the Wildland — Urban Interface: What Insurers Need, 1938
- Murphy, James**
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Murphy, Joseph F., P.E.**
see Green, David W., 1261
- Murphy, Paul**
 Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, 688
- Murray, Regan**
 Model for Estimating Acute Health Impacts from Consumption of Contaminated Drinking Water, 1831
see Janke, Robert, 1834
- Murray, Thomas M.**
see Setareh, Mehdi, 1371
- Murthy, B. R. Srinivasa**
see Babu, G. L. Sivakumar, 1754
- Musleh, F. A.**
 Functional Relationships of Resistance in Wide Flood Plains with Rigid Unsubmerged Vegetation, 948
- Mussa, Renatus**
 Probabilistic Neural Networks Application for Vehicle Classification, 1693
- Mussa, Renatus, P.E.**
 Safety Analysis of Florida Rural Interstate Freeway Travel in Relation to the 65 km/h (40 mi/hr) Minimum Speed Regulation, 1740
- Muste, Marian**
see Eltema, Robert, 934
see Michell, Frank, 975
- Muttill, N.**
see Jayawardena, A. W., 1070
- Myerchin, Greta**
 Disinfection By-Product Formation during Long-Term Water Storage in Alaska, 188
- Myers, John J.**
see Ekenel, Mahmut, 232
- Myers, Tommy**
see Lyons, Terrence, 639
- Myint, M.**
see Gadhamshetty, V., 429
- Mysore, Deepa**
 Vermiculite Filtration for Removal of Oil from Water, 1957
- Na, Lim Jay**
 Stimulating Construction Innovation in Singapore through the National System of Innovation, 394
- Naess, A.**
see Dimentberg, M., 568
- Naidu, A. S. K.**
 Bayesian Network for E/M Impedance-Based Damage Identification, 267
- Naik, Tarun R.**
 High-Carbon Fly Ash in Manufacturing Conductive CLSM and Concrete, 1347
- Nair, R. Shankar, P.E.**
 Preventing Disproportionate Collapse, 1396
- Naito, C. J.**
 Blast Assessment of Load-Bearing Reinforced Concrete Shear Walls, 1982
- Najarian, Tavit O.**
see Litwack, Howard S., 642
- Najera, B.**
see Barr, P. J., 1365
- Nakai, Teruo, ed.**
see Lade, Poul V., ed., 2069
- Nakamura, Tsuneyoshi**
see Ito, Hitoshi, 1581
- Nakashima, Masayoshi**
see Inoue, Kazuo, 1525
see Okazaki, Taichiro, 1557
see Okazaki, Taichiro, 1570
- Nakata, Kisaburo**
see Azam, Mir Hamadul, 1902
- Nakayama, Wataru**
see Shimizu, Yoshihisa, 801
- Nakaza, Eizo**
 Cross-Shore Internal Waves in Zampa Coastal Region of Okinawa Island, 1858
- Nakhla, G.**
see Acharya, C., 691
- Nakhla, George**
see Mohan, Prasanna K., 613
- Nam, Kyoungphile**
see Moon, Hee Sun, 709
- Namekar, Shailesh**
 Application of Artificial Neural Network Model in Estimation of Wave Spectra, 1894
- Namiki, Hironori**
see Sakano, Masahiro, 171
- Nanakorn, Pruetttha**
see Neaupane, Krishna Murari, 826
- Nanbakhsh, Hassan**
see Zheng, Jinghui, 1775
- Nanda, G.**
see Jha, Madan K., 1135

Nandagiri, Lakshman

Performance Evaluation of Reference Evapotranspiration Equations across a Range of Indian Climates, 1190

Nanni, Antonio

see Ekenel, Mahmut, 232

Narla, Omprasad

see Khodadoust, Amid P., 718

Nash, Phillip T., P.E.

see Bai, Yong, P.E., 130

see Bai, Yong, P.E., 321

Nassar, Khaled

Reclaimed Asphalt Pavement Detection and Quantity Determination, 1988

Nassar, Khaled M.

Developing a Complexity Measure for Project Schedules, 343

Nassar, Walid

see Nassar, Khaled, 1988

Natarajan, R.

see Kannah, T. Rajesh, 1861

Natarajan, Priya

see Huang, Frank Y. C., P.E., 771

Naunovic, Zorana

see Blatchley, Ernest R., III, 742

Navon, R.

Model for Automated Monitoring of Fall Hazards in Building Construction, 360

see Sacks, R., 256

Nayal, Rim

Tension Stiffening Model for Concrete Beams Reinforced with Steel and FRP Bars, 1363

Nayfeh, A. H.

see Baccouch, M., 72

Nazarian, Soheil

Impact of Temperature Gradient on Modulus of Asphaltic Concrete Layers, 1316

see Chen, Dar-Hao, 1140

see Tandon, Vivek, 1314

Nazariha, M.

see Zarrati, A. R., 947

Neaupane, Krishna Murari

Coupled Heat-Deformation-Flow Analysis for Clayey Soil, 826

Nedović-Budić, Zorica

CommunityViz-Based Prototype Model for Assessing Development Impacts in a Naturalized Floodplain — EmiquonViz, 1795

Neelkanth, J. K.

see Mishra, P. K., 1196

Neff, Daniel H., P.E.

see U, José Terán, 1994

Negami, Takehito

see Hong, Zhenshun, 806

Nehate, Girish

3D Calculation of Stopping-Sight Distance from GPS Data, 1739

Nelson, Bruce

see Bank, Lawrence C., 208

Nelson, John D., P.E.

see Chao, Kuo-Chieh, P.E., 1658

see Perko, Howard A., P.E., 73

Nelson, Lee O.

see Dettmers, Dana L., 1952

Nelson, Priscilla P.

see Hsu, Sung-Chi, 796

Nemes, Rita

Strength of Lightweight Glass Aggregate Concrete, 1343

Neocleous, K.

Design Issues for Concrete Reinforced with Steel Fibers, Including Fibers Recovered from used Tires, 1339

Nepal, Madhav Prasad

Effects of Schedule Pressure on Construction Performance, 306

Netherton, Michael D.

see Stewart, Mark G., 1933

Neto, Jorge Munaïar

see Chodraui, Gustavo Monteiro de Barros, 1503

Neuenhofer, A., P.E.

Lateral Stiffness of Shear Walls with Openings, 1621

Neves, Luis A. C.

Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Single Maintenance Type, 1537

Probabilistic Lifetime-Oriented Multiobjective Optimization of Bridge Maintenance: Combination of Maintenance Types, 1619

Nevling, D.

Examination of Level of Analysis Accuracy for Curved I-Girder Bridges through Comparisons to Field Data, 120

Newcombe, Remembrance L.

Arsenic Removal from Water by Moving Bed Active Filtration, 583

Newell, Charles J., P.E.

Multiyear Temporal Changes in Chlorinated Solvent Concentrations at 23 Monitored Natural Attenuation Sites, 672

Newman, J. A., P.E.

see Parker, D. S., P.E., 684

Newton, Tim

Effect of Structure on the Geotechnical Properties of Bauxite Residue, 792

Newton, Linda A.

Impact of Quality on Building Costs, 1157

Newton, Craig M.

Fundamental Frequency Testing of Reinforced Concrete Beams, 1384

AUTHOR INDEX

Novokshchenov

- Nezu, Ichisa
Numerical Calculation of Turbulence Structure in
Depth-Varying Unsteady Open-Channel Flows, 999
- Ng, C. W. W.
see Zhang, L. M., 854
- Ng, H. S.
Knowledge Discovery in a Facility Condition Assess-
ment Database using Text Clustering, 1142
- Ng, Mandy Y. M.
see Leung, Christopher K. Y., 201
- Ng, Simon, P.E.
see Attanayake, Upul, 156
- Ng, Tang-Tat
Input Parameters of Discrete Element Methods, 506
- Ng, Tiong Lian
see Ling, Florence Yean Yng, 1412
- Ng, Wing-Cheong
Evaluating the Impact of Vessel-Traffic Interference on
Container Terminal Capacity, 1862
- Ngeh, Lawrence N.
see Dao, Hien V., 661
- Nguyen, Dan K.
2D Shallow-Water Model using Unstructured Finite-
Volumes Methods, 958
- Nguyen, Ngoc T. B.
Strength and Behavior of Cold-Formed Steel
Z-Sections Subjected to Major Axis Bending, 1600
- Nguyen, The Hung
see Nguyen, Dan K., 958
- Ni, Chun
see Mi, Hongyong, 1452
see Varoglu, Erol, 1578
- Nicholas, Brian S.
see Higgins, Christopher, P.E., 173
- Nichols, Andrew P.
Automatic Speed Calibration Methodology for Traffic
Monitoring Sites, 1666
- Nickerson, Robert E., P.E., ed.
Electrical Transmission Line and Substation Structures:
Structural Reliability in a Changing World, 2062
- Niehaus, Randall S., P.E.
see Hahn, Daniel E., P.E., 2024
- Nielsen, Kris R.
Risk Management: Lessons from Six Continents, 1244
- Nielsen, Richard J.
see Milligan, Jarrod H., 166
- Niemeier, D. A.
see Eisinger, D. S., 1756
- Niemeier, Debbie A.
see Hendren, Patricia, 1159
- Niewiarowski, Rich
see Lizundia, Bret, 2029
- Nikolov, Alex
see Vijayaraghavan, Krishna, 680
- Nikora, V.
see Aberle, J., 990
- Nikora, Vladimir
see Manes, Costantino, 1028
- Nirmalakhandan, N.
see Gadhamshetty, V., 429
see McShannon, J., 1424
- Nishat, Ainun
see Islam, G. M. Tarekul, 1043
- Nititharmyong, Pollaphat
Success/Failure Factors and Performance Measures of
Web-Based Construction Project Management Sys-
tems: Professionals' Viewpoint, 295
- Niu, Hedong
Effects of FRP-Concrete Interface Bond Properties on
the Performance of RC Beams Strengthened in Flex-
ure with Externally Bonded FRP Sheets, 1345
- Niwawate, Chudate
see Ogunlana, Stephen, 1247
- Nixon, W.
Range of Validity of the Transient Damping Leakage
Detection Method, 1025
- Nkrunziza, Gilbert
see Debaiky, Ahmed S., 226
- Noble, Rachel T.
see Fries, J. Stephen, 736
- Noble, Richard M., P.E.
Streaming Solutions, 1997
- Nogami, T.
see Chowdhury, B., 856
- Noguera, Daniel R.
see Goel, Ramesh K., 735
- Noldred, O.
see Thomas, W. H., 1487
- Nordin, Håkan
Concrete Beams Strengthened with Prestressed Near
Surface Mounted CFRP, 194
- Norman, Jonathan
Comparing High and Low Residential Density: Life-
Cycle Analysis of Energy Use and Greenhouse Gas
Emissions, 1772
- North, Steve
see Winch, Graham M., 335
- Norville, H. Scott, P.E.
Blast-Resistant Glazing Design, 97
see Minor, Joseph E., P.E., 95
- Noumowé, A.
High-Strength Self-Compacting Concrete Exposed to
Fire Test, 1349
- Nova, Roberto
see Arroyo, Marcos, 1290
- Nova-Roessig, Lili, P.E.
Centrifuge Model Studies of the Seismic Response of
Reinforced Soil Slopes, 813
- Novokshchenov, Vladimir, P.E.
A Cautionary Tale, 1995

- Nozick, Linda K.
see Davidson, Rachel A., 425
- Nuntasunti, Suchart
 Experimental Assessment of Wireless Construction Technologies, 388
- Nussbaum, Miguel
see Aldunate, Roberto, 247
- Nüsslein, Klaus
see DeJong, Jason T., 905
- Nuttayasakul, Nuthaporn
 Behavior of Complex Hat Shapes used as Truss Chord Members, 1501
- Nwaiwu, Charles M. O.
see Osinubi, Kolawole J., 798
see Osinubi, Kolawole J., 1287
- Oad, Ramchand
 Managing Irrigation for Better River Ecosystems — A Case Study of the Middle Rio Grande, 1229
- O'Bannon, Deborah J., P.E.
 Creating a New School of Computer Science and Engineering in Kansas City, 1912
- Obata, Makoto
see Goto, Yoshiaki, 1599
- Obenour, Dan
see Whiteaker, Timothy L., 1074
- O'Brien, Eugene J.
see Brady, Sean P., 128
see Brady, Sean P., 129
- O'Brien, William J.
see El-Mashaleh, Mohammad, 338
- Ochoa, Sergio F.
see Aldunate, Roberto, 247
- O'Connell, Neil
see Consoli, Simona, 1164
see Consoli, Simona, 1165
- O'Connor, James T.
 Crew Production Rates for Contract Time Estimation: Beam Erection, Deck, and Rail of Highway Bridges, 328
see Cha, Hee Sung, 1253
- Odai, Samuel Nii
 Analytical Solution of the Burgers Equation for Simulating Translatory Waves in Conveyance Channels, 951
- Odeyinka, Henry Agboola
see Aibinu, Ajibade Ayodeji, 354
- O'Donnell, Brian, P.E.
 Completing the Circle, 2023
- Oehlers, D. J.
see Liu, I. S. T., 199
see Liu, I. S. T., 200
- Ofori, George
see Na, Lim Jay, 394
- Ogunlana, Stephen
 Effect of Humor Usage by Engineers at Construction Sites, 1247
- Oguz, Seyfullah H.
see Aydılek, Ahmet H., 2
- Oh, Byung Hwan
 Theoretical Analysis of Transfer Lengths in Pretensioned Prestressed Concrete Members, 545
- Oh, Jeong-Ho
 Modeling of Pavement Response using Nonlinear Cross-Anisotropy Approach, 1711
- Oh, Jutack
see Kim, Do-Gyeong, 1692
- Ohara, N.
see Kavvas, M. L., 1099
- Ohashi, Akiyoshi
see Tandukar, Madan, 601
- Ohlsen, Michael
see McLean, Amanda, 1945
- Ojha, C. S. P.
see Singh, A. K., 34
- Okamura, M.
see Ioualalen, M., 1870
- Okamura, Mitsuo
 Degree of Saturation and Liquefaction Resistances of Sand Improved with Sand Compaction Pile, 803
- Okazaki, Taichiro
 Experimental Performance of Link-to-Column Connections in Eccentrically Braced Frames, 1557
- Stability Requirements for Beams in Seismic Steel Moment Frames, 1570
- Oktay, Seda
see Cokgor, Emine Ubay, 590
- Okui, Y.
see Amin, A. F. M. S., 440
- Olek, Jan
see Yang, Zhifu, 1307
- Oleszkiewicz, J. A.
see Sears, K., 724
- Oliva, Michael G.
see Bank, Lawrence C., 208
- Olmo, Iñaki Fernández
see López, Isabel, 706
- Olsen, Kimball G.
see Rollins, Kyle M., 894
see Rollins, Kyle M., 895
- Olsen, R. S.
see Moss, R. E. S., 812
- Olsen, Ryan J.
see Rollins, Kyle M., 894
see Rollins, Kyle M., 895
- Onar, Arzu
 Statistical Mixed Effects Models for Evaluation and Prediction of Accelerated Pavement Testing Results, 1748
- Önder, Halil
see Korkmaz, Serdar, 1192

AUTHOR INDEX

Ozcebe

- O'Neill, John C.
see Booker, James F., 1854
- Ong, D. E. L.
Pile Behavior due to Excavation-Induced Soil Movement in Clay. I: Stable Wall, 780
see Leung, C. F., 781
- Ong, G. P.
Transverse Pavement Grooving against Hydroplaning. I: Simulation Model, 1709
see Fwa, T. F., 1710
- Ong, Seehong
see Yi, Xianjie, 38
- Onizuka, Kotaro
see Odai, Samuel Nii, 951
- Oostrom, M.
see Thornton, E. C., 769
- Oparadu, Edmund E.
see Udoeyo, Felix F., 1330
- Oppenheim, P., P.E.
see Grosskopf, K. R., 419
- Or, Dani
see Berli, Markus, 22
- Orbell, John D.
see Dao, Hien V., 661
- Ordóñez, Javier F.
see Gabriel, Steven A., 1148
- Orhon, Derin
see Cokgor, Emine Ubay, 590
- Orosz, Matthew P.
see Horman, Michael J., 324
- O'Rourke, T. D.
Lessons Learned for Ground Movements and Soil Stabilization from the Boston Central Artery, 868
- O'Rourke, Thomas D.
see Davidson, Rachel A., 425
see Tutuncu, Ilker, 1560
- Ortega-Guerrero, Marcos Adrián
see Loáiciga, Hugo A., 1116
- Ortiz-García, José J.
Derivation of Transition Probability Matrices for Pavement Deterioration Modeling, 1678
- Osato, Koji
see Odai, Samuel Nii, 951
- Osborn, Andrew E. N., P.E.
see Loizeaux, Mark, 1405
- Osinubi, Kolawole J.
Compaction Delay Effects on Properties of Lime-Treated Soil, 1287
Design of Compacted Lateritic Soil Liners and Covers, 798
- Osinubi, Kolawole Juwunio
Influence of Compactive Efforts on Lime-Slag Treated Tropical Black Clay, 1280
- Osman, Ashraf S.
Ground Movement Predictions for Braced Excavations in Undrained Clay, 821
- Osorio, D.
see Damgaard, J. S., 1883
- Ostendorf, David W.
Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff, 761
- Osteraas, John D.
Murrah Building Bombing Revisited: A Qualitative Assessment of Blast Damage and Collapse Patterns, 1399
- Ostfeld, Avi
see Grayman, Walter M., 1832
see Preis, Ami, 1828
- Othman, M.
see Abdul-Rahman, H., 300
- Othman, M. Y.
Double-Pass Photovoltaic-Thermal Solar Air Collector with Compound Parabolic Concentrator and Fins, 433
Double-Pass Photovoltaic-Thermal Solar Collector, 434
- Otter, Duane E.
see Foutch, Douglas A., 165
- Ottson, Christopher E., P.E.
see Bruen, Michael P., 2004
- Oumeraci, H.
see de Groot, M. B., 1885
see Kudella, M., 1884
- Overcamp, Thomas J.
Type II Settling Data Analysis, 598
- Overton, Daniel D., P.E.
see Chao, Kuo-Chieh, P.E., 1658
- Oweis, Issa S.
Estimate of Landfill Settlements due to Mechanical and Compositional Processes, 837
- Owolabi, Abidemi
Development of an Industry Foundation Classes Assembly Viewer, 257
- Oyetunji, Adetokunbo A.
Relative Effectiveness of Project Delivery and Contract Strategies, 288
- Ozaydin, Kutay
see Guler, Goknil, 1645
- Ozbakkaloglu, Togay
Seismic Behavior of High-Strength Concrete Columns Confined by Fiber-Reinforced Polymer Tubes, 243
- Ozbay, K.
Modeling and Analysis of the Link between Accessibility and Employment Growth, 1703
- Ozbey, M. Cem
see Rathje, Ellen M., 863
- Ozcebe, Guney
see Canbay, Erdem, 1541

- Özger, Mehmet**
see Uyumaz, Ali, 1038
- Özkandemir, V.**
see Göğüş, M., 1193
- Ozmen, D.**
see Ozbay, K., 1703
- Ozorhon, Beliz**
 Case-Based Reasoning Model for International Market Selection, 381
- Pacheco, Sadott**
 Removal of Inorganic Mercury from Polluted Water using Structured Nanoparticles, 621
- Packer, Jeffrey A.**
see Seica, Michael V., 1143
- Packham, I. S. J.**
see Rafiq, M. Y., 254
- Pagalthivarthi, K. V.**
see Naidu, A. S. K., 267
- Pagliara, Stefano**
 Energy Dissipation on Block Ramps, 935
 Energy Dissipation on Reinforced Block Ramps, 1197
 Flow Resistance of Rock Chutes with Protruding Boulders, 986
 Hydraulics of Plane Plunge Pool Scour, 976
- Pai, Tzu-Yi**
see Tsai, Yung-Pin, 602
- Palau-Salvador, Guillermo**
 Real Local Losses Estimation for On-Line Emitters Using Empirical and Numerical Procedures, 1224
- Palmer, A. C.**
see Damgaard, J. S., 1883
see de Groot, M. B., 1877
see Teh, T. C., 1878
- Pamukcu, Sibel**
 Thermoelastic Enhancement of Damping of Sand using Synthetic Ground Rubber, 824
see Puppala, Anand J., ed., 2087
- Pan, Ernian**
see Wang, Cheng-Der, 12
- Pan, Tongyan**
 Effect of Coarse Aggregate Morphology on Permanent Deformation Behavior of Hot Mix Asphalt, 1726
- Panariello, Gary**
see Abruzzo, John, 1404
- Pandey, A. K.**
 Strain Rate Model for Dynamic Analysis of Reinforced Concrete Structures, 1576
- Pandey, P. C.**
see Thakkar, Bhairav K., 483
- Pandit, Aarti**
see Zhu, Yimin, 268
- Pang, H. W.**
see Zhang, L. M., 854
- Panizzo, Andrea**
 EOF Analysis of Complex Response of Venice Mobile Gates, 1872
- Panoskaltis, Vassilis P.**
see Bahuguna, Saurabh, 458
- Pantazopoulou, S. J.**
see Tastani, S. P., 190
see Tastani, S. P., 227
- Pantelides, Chris P.**
see Reay, Jaron T., 125
see Saenz, Nicolas, 212
- Paolucci, Roberto**
 Ground Motion Induced by Train Passage, 455
- Papadimitriou, G.**
see Rogers, C. D. F., 1288
- Papagiannakis, A. T.**
 Traffic Data Collection Requirements for Reliability in Pavement Design, 1688
- Papagiannakis, A. T., P.E.**
 Utilizing Clustering Techniques in Estimating Traffic Data Input for Pavement Design, 1759
- Papavasiliou, V.**
see Loizos, A., 1770
- Papoulia, Katerina D.**
see Bahuguna, Saurabh, 458
- Pappas, Michael P.**
see Gibson, G. Edward, Jr., 1241
- Paquier, A.**
see Proust, S., 1026
- Paradis, Francois**
see Morency, Maxim, 1300
- Parekh, Minal L., ed.**
see Wiltshire, Richard L., ed., 2070
- Parida, Bhagabat P.**
see Mishra, Govinda C., 50
- Parihar, A. S.**
see Srinivas, Y., 468
- Paris, Deidre E.**
 Impact of Property Management Services on Affordable Housing Residents in Atlanta, Georgia, 1387
- Park, Chang Ho**
see Suh, Wonho, 1734
- Park, Eun Sug**
see Fitzpatrick, Kay, P.E., 1684
- Park, H.**
 Improved STrength Model for Interior Flat Plate-Column Connections Subject to Unbalanced Moment, 1509
- Park, Heekyung**
 Uncertainty Analysis of Mound Monitoring for Recharged Water from Surface Spreading Basins, 752
- Park, Hyo Seon**
 Distributed Hybrid Genetic Algorithms for Structural Optimization on a PC Cluster, 1625
- Park, Jae Kwang**
see Ahn, Chang Hoon, 701

AUTHOR INDEX

- Park, Junbom**
see Lee, Seunghak, 632
- Park, Moonseo**
see Lee, SangHyun, 273
see Lee, SangHyun, 333
see Na, Lim Jay, 394
see Nepal, Madhav Prasad, 306
- Park, Peter Young-Jin**
see Suh, Wonho, 1734
- Park, Sejung**
see Madanat, Samer, 1156
- Park, Sooyong**
 Blind Test Results for Nondestructive Damage Detection in a Steel Frame, 1520
- Park, Sung-Kil**
see Cort, Todd L., 595
- Parker, Andrew**
see Zou, Rui, 644
- Parker, D. S., P.E.**
 New Process Design Procedure for Dealing with Variable Tricking Filter Effluent Suspended Solids, 684
- Parker, Gary**
see Wong, Miguel, 1049
- Parker, Harvey W., ed.**
see Morgan, Dudley R., ed., 2086
- Parkinson, Bradford W.**
see Gebre-Egziabher, Demoz, 68
- Parks, Gary A., P.E.**
 At a Crossroads — Is Value-based Compensation the Answer?, 1919
- Parks, Jeffrey L.**
 Precipitative Removal of As, Ba, B, Cr, Sr, and V using Sodium Carbonate, 653
- Parra-Montesinos, Gustavo J.**
 Behavior of Steel Double-Channel Built-Up Chords of Special Truss Moment Frames under Reversed Cyclic Bending, 1571
see Fargier-Gabaldón, Luis B., 1540
- Parsons, Robert L., ed.**
 Foundation Analysis and Design -- Innovative Methods, 2067
- Parsons, S. B.**
see Guganesharajah, K., 1036
- Pascal, M.**
 Investigation of the Influence of Sprinkler Fins and Dissolved Air on Jet Flow, 1168
- Patel, Virendra C.**
see Yue, Wusi, 996
- Patrick, Michael D.**
 Sensitivity of Live Load Distribution Factors to Vehicle Spacing, 117
- Patton, George C., P.E.**
see Phillips, James M., III, P.E., 2031
- Pau, John C.**
 Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model, 255

Peng

- Paul, D. K.**
see Pandey, A. K., 1576
- Paulino, Glaucio H.**
see Buttlar, William G., 459
see Song, Seong Hyeok, 563
see Walters, Matthew C., 435
- Paulson, Boyd C., Jr.**
see Tatum, C. B., P.E., 385
- Pavic, Aleksandar**
see Reynolds, Paul, 1385
- Pavlou, Eleni**
 Response of Nonstructural Components in Structures with Damping Systems, 1547
- Pawlak, Geno**
see Nakaza, Eizo, 1858
- Payero, José O.**
see Irmak, Suat, 1228
- Pearson, Cynthia**
 Collapse of the Quebec Bridge, 1907, 1373
- Pecce, Marisa**
 Response Prediction of RC Beams Externally Bonded with Steel-Reinforced Polymers, 207
- Pedreschi, Remo**
 Predicting the Shear Strength of Mechanical Clinching in Cold-Formed Steel Structures, 1308
- Pei, Jin-Song**
 New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. I: Formulation, 571
 New Approach to Designing Multilayer Feedforward Neural Network Architecture for Modeling Nonlinear Restoring Forces. II: Applications, 572
- Peirson, William L.**
 Design of Rock Protection to Prevent Erosion by Water Flows Down Steep Slopes, 1044
- Pekau, O. A.**
 Three-Degree-of-Freedom Rigid Model for Seismic Analysis of Cracked Concrete Gravity Dams, 537
- Peköz, T.**
see Schafer, B. W., 1459
- Pellinen, Terhi K.**
see Llenín, José A., 1388
- Peña, E.**
see Puertas, J., 1069
- Peña-Mora, Feniosky**
see Aldunate, Roberto, 247
see Lee, SangHyun, 273
see Lee, SangHyun, 333
- Pender, Gareth**
see Cao, Zhixian, 1041
see Cao, Zhixian, 1059
- Peng, Dingzhi**
 Reservoir Storage Curve Estimation Based on Remote Sensing Data, 1087
- Peng, Zan-Guo**
see Zhu, Jian-Hang, 722

Penumadu, Dayakar

see Lin, Han, 17

see Lin, Han, 489

Peot, Christopher, P.E.

see Gabriel, Steven A., 652

Perera, Ricardo

Structural Damage Detection via Modal Data with Genetic Algorithms, 1586

Pérez, G.

One-Dimensional Model of Shallow Water Surface Waves Generated by Landslides, 977

Periketi, R. K.

see Fox, G. A., 1133

Perko, Howard A., P.E.

Mars Soil Mechanical Properties and Suitability of Mars Soil Simulants, 73

Perng, Yeng-Horng

Exploring the Bidding Situation for Economically Most Advantageous Tender Projects using a Bidding Game, 350

Perry, M.R. @ Marshall Space Flight Center (MSFC), in Huntsville, Alabama.

see Bodiford, Melanie P., 2011

Perttula, Pia

Improving the Safety and Efficiency of Materials Transfer at a Construction Site by using an Elevator, 371

Pestana, Juan M.

Small-Strain Behavior of Granular Soils. I: Model for Cemented and Uncemented Sands and Gravels, 876
see Salvati, Lynn A., 877

Petcherdchoo, Aruz

see Neves, Luís A. C., 1619

Peter, J. Annie

Investigations on the Static Behavior of Self-Compacting Concrete Under-Reamed Piles, 1305

Peterman, Robert J.

see Rasheed, Hayder A., 231

Petermeier, David, P.E.

see Kober, Aaron, P.E., 2022

Peters, Robert W.

see Sisiopiku, Virginia P., 663

Petersen, Elijah J.

Screening Level Risk Assessment of Heavy Metal Contamination in Cleveland Area Commons, 627

Petersen, James N.

see Alam, Mahbub, 623

Peterson, Lance N.

see Dettmers, Dana L., 1952

Peterson, P. F.

see Forsberg, C. W., 432

Petrou, Michael F.

see Aidoo, John, 138

Peyton, Brent M.

see Alam, Mahbub, 623

Pfister, Michael

Bottom Aeration of Stepped Spillways, 1014

Pham, Huy Binh

Prediction Models for Debonding Failure Loads of Carbon Fiber Reinforced Polymer Retrofitted Reinforced Concrete Beams, 193

Pham, Maria M.

Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems used in Australian Residential Construction, 1502

Pham, Thang

see Wu, Jonathan T. H., 855

Pham, Xuan P.

Generic Design of V-Shape and Vane-Type Breakwaters to Reduce Green Water Load Effects on Deck Structures and Containers of Ships: Case Study, 1860

Phelan, R. Scott

see Budek, Andrew, 89

Phelan, R. Scott, P.E.

Full-Scale Measurements to Investigate Rain — Wind Induced Cable-Stay Vibration and its Mitigation, 133

Pheng, Low Sui

see Arain, Faisal Manzoor, 1372

Phillips, Cynthia A.

see Berry, Jonathan, 1823

Phillips, James M., III, P.E.

Royal Treatment, 2031

Phohomsiri, Phailaung

Time-Delayed Positive Velocity Feedback Control Design for Active Control of Structures, 503

Phoon, K. K., ed.

see Parsons, Robert L., ed., 2067

Photiou, Nikolaos K.

Selection of Carbon-Fiber-Reinforced Polymer Systems for Steelwork Upgrading, 1335

Phungpaingam, B.

Postbuckling of Beam Subjected to Intermediate Follow Force, 436

Pi, Yong-Lin

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. I: Theory, 1515

Second Order Nonlinear Inelastic Analysis of Composite Steel-Concrete Members. II: Applications, 1516

Picado-Santos, Luís

see Capitão, Silvino Dias, 1704

Pichler, Bernhard

Loading of a Gavel-Buried Steel Pipe Subjected to Rockfall, 913

Pichler, Christian

Safety Assessment of Concrete Tunnel Linings under Fire Load, 1534

Pickus, Jonathan M.

see Samuels, William B., 970

Pietrucha, Martin T., P.E.

Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs, 1758

AUTHOR INDEX

Pousa

- Pijaudier-Cabot, Gilles
see Turcay, Philippe, 1266
- Pilakoutas, K.
see Neocleous, K., 1339
- Pilakoutas, Kypros
see Guadagnini, Maurizio, 235
- Pines, David S.
see Leshem, Ehud N., 619
- Pinheiro, A. N.
see Melo, J. F., 936
- Pinto, Federico
Three-Dimensional Indirect Boundary Element Method
Formulation for Dynamic Analysis of Frames Buried
in Semiinfinite Elastic Media, 536
- Pinto, Paolo E.
see Lupoi, Giorgio, 473
- Pirnie, Erica F.
Transformation of DDT and its Metabolites by Various
Abiotic Methods, 662
- Pisani, Marco A.
Evaluation of Bending Strength of RC Beams Strength-
ened with FRP Sheets, 220
- Pivonka, P.
see Fletcher, H. R., 608
- Plakantaras, V.
see Tastani, S. P., 190
- Plaut, Raymond H.
Postbuckling of Elastic Columns with Second-Mode
Imperfection, 527
- Playán, E.
see Lecina, S., 1199
see Lecina, S., 1200
- Plumtree, A.
see Al-Mayah, A., 1358
- Pocock, James B.
Constructability State of Practice Report, 325
- Podgornery, R. K.
Evaluating the Long-Term Performance of Geosynthet-
ic Clay Liners Exposed to Freeze-Thaw, 804
- Podstavek, Josef
see Vondrak, Jiri, 1650
- Poh, H. Y.
Soil Stabilization using Basic Oxygen Steel Slag Fines,
1285
- Pokhriyal, S. P.
see Rao, V. V. L. Kanta, 1379
- Pokrajac, Dubravka
see Manes, Costantino, 1028
- Poku, Stephen E.
Construction Scheduling and Progress Control using
Geographical Information Systems, 285
- Polak, Elijah
see Royset, Johannes O., 445
- Polak, John
see Robinson, Steve, 1730
- Pollack, A. K.
see Eisinger, D. S., 1756
- Pologruto, Michael
Study of In Situ Pavement Material Properties Deter-
mined from FWD Testing, 1745
- Ponti, Norberto
see Rinaldi, Victor, 784
- Poole, Toy
see Rollings, Raymond S., 1370
- Poon, Chi-Sun
see Lu, Ming, 408
- Poorooshasb, Hormoz
see Saad, Bassam, 1705
- Poovarodom, Nakhorn
see Pulngern, Tawich, 1517
- Popescu, Mihaela
see Singh, Rajkeshar, 84
- Porbaha, Ali, ed.
Ground Modification and Seismic Mitigation, 2072
- Porcino, Daniela
see Ghionna, Vito Nicola, 797
- Porporato, Amilcare
see Ridolfi, Luca, 447
- Porter, Andrea
Fuzzy Geographic Information Systems for Phy-
toremediation Plant Selection, 596
- Porter, Keith A.
see Ching, Jianye, 474
- Porto, Paolo
see Ferro, Vito, 1082
- Ports, Michael A., ed.
see Field, Richard, ed., 2052
- Posbergh, Thomas
see Zhao, Jian, 1584
- Post, Carol, P.E.
Landmark Library, 2021
- Poston, Randall W.
see Smith-Pardo, J. Paul, 110
- Potgieter, J. H.
see Potgieter-Vermaak, S. S., 1332
- Potgieter-Vermaak, S. S.
Metakaolin as an Extender in South African Cement,
1332
- Potisuk, Tanarat
see Higgins, Christopher, P.E., 173
- Potts, D. M.
see Grammatikopoulou, A., 41
- Poulos, H. G.
see Surjadinata, J., 49
- Poulos, Harry G.
Raked Piles — Virtues and Drawbacks, 852
- Pousa, Jorge L.
see Guaraglia, Dardo O., 1195

- Powell, Anne Elizabeth**
The Widening Gulf, 2027
- Powell, J. David**
see Gebre-Egziabher, Demoz, 68
- Powell, Jon**
see Jain, Pradeep, 671
- Powelson, David**
see Abichou, Tarek, 607
- Powrie, W.**
see Cox, S. E., 859
- Poyet, Stéphane**
Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations, 1328
- Prachasaree, Woraphot**
Performance Evaluation of FRP Bridge Deck Component under Torsion, 146
see Laosiriphong, Krit, 153
- Pradhan, Anu R.**
see Laefer, Debra F., 1695
- Pradhan, B.**
Soil — Nail Pullout Interaction in Loose Fill Materials, 36
- Pradhan, P. K.**
see Baidya, D. K., 789
- Pradhan, Shashank K.**
DSC Model for Soil and Interface Including Liquefaction and Prediction of Centrifuge Test, 799
- Prairie, James R.**
Modified K-NN Model for Stochastic Streamflow Simulation, 1110
- Prakash, T.**
see Ganapathi, M., 528
- Prasad, A. Meher**
see Srinivas, S., 1767
- Prasad, A. Srinivasa**
Optimal Irrigation Planning under Water Scarcity, 1189
- Prasertmanukitch, S.**
see Tierney, M. J., 622
- Prashant, Amit**
see Lin, Han, 17
- Prashanth, S.**
Anaerobic Degradability: Effect of Particulate COD, 637
- Prashker, Joseph N.**
see Hollander, Yaron, 1778
- Prato, Carlos A.**
see Pinto, Federico, 536
- Pré, Pascaline**
see Yazbek, Wael, 648
- Preis, Ami**
Contamination Source Identification in Water Systems: A Hybrid Model Trees-Linear Programming Scheme, 1828
- Prendergast, John**
see Rodgers, Michael, 685
- Presti, Diego C. F. Lo**
ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits, 800
- Price, A. D. F.**
see Soetanto, R., 316
- Price, Thomas H., P.E.**
see Johnston, Douglas M., 1804
- Prion, H.**
see Leijten, A. J. M., 1568
- Prisyazhniuk, V. A.**
Pressure Drop as a Criterion of a Steam-Turbine Plant's Efficiency, 423
- Pritchard, David**
Rate of Deposition of Fine Sediment from Suspension, 985
- Propato, Marco**
Contaminant Warning in Water Networks: General Mixed-Integer Linear Models for Sensor Location Design, 1824
- Proszek, James J.**
see Ariaratnam, Samuel T., 1437
- Prota, A.**
Experimental In-Plane Behavior of Tuff Masonry Strengthened with Cementitious Matrix — Grid Composites, 210
- Prota, Andrea**
see Pecce, Marisa, 207
- Proust, S.**
Flow in Compound Channel with Abrupt Floodplain Contraction, 1026
- Prozzi, Jorge, ed.**
see Huang, Baoshan, ed., 2079
- Prozzi, Jorge A.**
see Hong, Feng, 1144
- Pryke, Stephen D.**
Legal Issues Associated with Emergent Actor Roles in Innovative U.K. Procurement: Prime Contracting Cast Study, 1413
- Pryor, S. C.**
see Barthelmie, R. J., 430
- Pserng, H. Ping**
Developing a Resource Supply Chain Planning System for Construction Projects, 327
- Puci, Ignazio**
see Presti, Diego C. F. Lo, 800
- Puckett, Jay A.**
see Patrick, Michael D., 117
- Puddicombe, Michael S.**
The Limitations of Planning: The Importance of Learning, 382
- Puente, I.**
Buckling of GFRP Columns: An Empirical Approach to Design, 242
- Puertas, J.**
Bat Echolocation Interfering with Ultrasonic Sensors, 1069

AUTHOR INDEX

Rahardjo

- Pulaski, Michael H.
Constructability Practices to Manage Sustainable Building Knowledge, 91
- Pulido-Velázquez, Manuel
Economic Optimization of Conjunctive Use of Surface Water and Groundwater at the Basin Scale, 1848
- Pulngern, Tawich
On the Free Vibrations of Variable-Arc-Length Beams: Analytical and Experimental, 1517
- Puntel, Eric
Fracture Mechanics Based Model for Joints under Cyclic Loading, 556
- Punthutaecha, Koonnamas
Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers, 1292
see Puppala, Anand J., P.E., 846
- Puppala, Anand
see Inyang, Hilary I., 1289
- Puppala, Anand J., ed.
Site and Geomaterial Characterization, 2087
Small-Strain Shear Moduli of Chemically Stabilized Sulfate-Bearing Cohesive Soils, 808
- Puppala, Anand J., P.E.
Soil-Water Characteristic Curves of Stabilized Expansive Soils, 846
see Punthutaecha, Koonnamas, 1292
- Parcell, Patrick J.
Physical Analog of the Linear Reservoir, 1089
- Puri, Sunil
Assessment of Localized Damage in Concrete under Compression using Acoustic Emission, 1296
- Putz, Gordon J.
see McLeod, Shaun M., 750
- Pyzocha, Michael J.
Vapor Leak Detection for an Underground Storage Tank System, 703
- Qi, H.
see Serrette, R., 1497
- Qi, Shuang
PCB Volatilization from Sediments, 594
- Qian, Yi
see Zhou, Ping, 597
- Qiao, Long
see Budek, Andrew, 89
- Qiao, Pizhong
see Cao, Maosen, 531
see Lestari, Wahyu, 203
see Wang, Jialai, 466
- Qiu, Tong
Hydraulic Damping of Saturated Poroelastic Soils During Steady-State Vibration, 523
- Qiu, Xiangjun
Full Two-Dimensional Model for Rolling Resistance: Hard Cylinder on Viscoelastic Foundation of Finite Thickness, 565
- Qiu, Y. F.
Design and Performance of Stone Mastic Asphalt, 1768
- Qi-Oquili, Osama
Future Environmental Regulation Issues to Promote Energy Efficiency, 427
- Qu, Junying
see Ramamurthy, A. S., 954
see Ramamurthy, A. S., 1212
see Ramamurthy, A. S., 1219
- Quader, Asif
Peak Discharge Estimation using Analytical Probabilistic and Design Storm Approaches, 1075
- Quang, Truong
see Ogunlana, Stephen, 1247
- Quanrud, David M.
see Drewes, Jörg E., 748
- Quaranta, J. D.
see Warren, K. A., 880
- Quek, S. T.
see Koh, C. G., 1638
- Quershi, Zafar H.
see Vijayaraghavan, Krishna, 680
- Quiñones-Bolaños, Edgar
Modeling Water Movement and Flux from Membrane Pervaporation Systems for Wastewater Microirrigation, 714
- Rabideau, Alan J.
see Bartelt-Hunt, Shannon L., 686
- Rabuñal, J.
see Puertas, J., 1069
- Radivojević, Ana
Evolution of Bricks and Brick Masonry in the Early History of its Use in the Region of Today's Serbia, 1341
- Radwan, Essam, P.E.
see Yan, Xuedong, 1738
- Rafferty, Alannah
see Rowlinson, Steve, 1414
- Rafiq, M. Y.
Visualizing Search and Solution Spaces in the Optimum Design of Biaxial Columns, 254
see Zhou, G. C., 276
- Ragheb, Katherine
see Blatchley, Ernest R., III, 742
- Raghuwanshi, N. S.
Runoff and Sediment Yield Modeling using Artificial Neural Networks: Upper Siwane River, India, 1078
- Raghuwanshi, Narendra S.
see Sahoo, Bhabagrahi, 1124
- Rahaman, S. M. B.
see Nakaza, Eizo, 1858
- Rahardjo, H.
see Yang, H., 1105
- Rahardjo, Harianto
see Thu, Trinh Minh, 815

Rahbar, Nima
see Alshawabkeh, Akram N., P.E., 870

Rahman, M. Motiar
see Ling, Florence Yean Yng, 1412

Rainville, Francois
see Rennie, Colin D., 955

Rais-Rohani, Masoud
see Thompson, Michel D., 1626

Rajagopal, K.
see Latha, G. Madhavi, 14

Rajagopal, K. R.
see Krishnan, J. Murali, 15
see Krishnan, J. Murali, 497

Rajagopalan, Balaji
see Prairie, James R., 1110

Rajan, S. D.
see Sharda, J., 62

Rajar, Rudi
see Cetina, Matjaž, 943

Rajaratnam, Nallamuthu
see Liu, Minnan, 1007
see Zhao, Can-Hua, 1058

Raju, K. Srinivasa
see Kumar, D. Nagesh, 1178

Rakha, Hesham
Analytical Procedures for Estimating Capacity of Free-
way Weaving, Merge, and Diverge Sections, 1731
Issues and Solutions to Macroscopic Traffic Dispersion
Modeling, 1723
see Farzaneh, Mohamadreza, 1722

Ralegaonkar, Rahul V.
see Gupta, Rajiv, 422

Ramachandra, L. S.
see Girish, J., 448
see Singha, Malay K., 548

Ramakrishna, Devikarani M.
Iron Oxide Coated Sand for Arsenic Removal: Investi-
gation of Coating Parameters using Factorial Design
Approach, 1962

Ramamoorthy, Sathish K.
Probabilistic Demand Models and Fragility Curves for
Reinforced Concrete Frames, 1593

Ramamurthy, A. S.
3D Simulation of Combining Flows in 90° Rectangular
Closed Conduits, 954

Nonlinear PLS Method for Side Weir Flows, 1219
VOF Model for Simulation of a Free Overfall in Trape-
zoidal Channels, 1212

Ramana, G. V.
see Abuel-Naga, H. M., 862

Ramanjaneyulu, K.
see Sasmal, Saptarshi, 1392

Ramirez, Julio A.
see Smith-Pardo, J. Paul, 110

Ramirez, Mark
see Gabriel, Steven A., 652

Ramm, Ekkehard
see Leukart, Michael, 465

Ramme, Bruce W.
see Naik, Tarun R., 1347

Ramos, C. M.
see Melo, J. F., 936

Ramos, G.
Normalized Test for Prediction of Debonding Failure
in Concrete Elements Strengthened with CFRP, 240

Randall, Andrew Amis, P.E.
see McCue, Terrence Michael, P.E., 720

Randall, Clifford
see Cokgor, Emine Ubay, 590

Randall, J.
see Salem, O., 1980

Randhir, Timothy
see Matteo, Michelle, 1815

Randle, Timothy
see Greimann, Blair, 1003

Randolph, John
see Dougherty, Mark, 643

Randolph, Mark
see Gourvenec, Susan, 27

Randolph, Mark F.
Numerical Analysis of T-Bar Penetration in Soft Clay,
53
see Chung, Shin Fun, 887

Ranjan, R.
see Srinivas, Y., 468

Ranjithan, S. Ranji
see Kumar, Sujay V., 1840

Rao, K. S. Subba
see Choudhury, Deepankar, 30

Rao, M. M.
Modal Seismic Control of Building Frames by
Artificial Neural Network, 252

Rao, M. V. B.
see Rao, V. V. L. Kanta, 1379

Rao, N. N.
Fenton and Electro-Fenton Methods for Oxidation of
H-Acid and Reactive Black 5, 624

Rao, P. Rama Mohan
see Reddy, N. Bhanu Prakasham, 973

Rao, R. Seshagiri
see Babu, G. L. Sivakumar, 1754

Rao, S. V. N.
Optimal Pumping from Skimming Wells, 1118

Rao, V. V. L. Kanta
Structural Evaluation of Cement Concrete Roads in
Mumbai City, 1379

Rasa, Pirkko-Liisa
see Perttula, Pia, 371

AUTHOR INDEX

Ren

- Rasdorf, William, P.E.
see Abudayyeh, Osama, P.E., 246
see Cai, Hubo, 1646
- Rasheed, Hayder A.
 Analysis and Design Procedure for FRP-Strengthened Prestressed Concrete T-Girders Considering Strength and Fatigue, 231
see Nayal, Rim, 1363
- Rasmussen, K. J. R.
see Bambach, M. R., 8
- Rasmussen, Kim
see Lecce, Maura, 1489
- Rasmussen, Kim J. R.
 Design of Slender Angle Section Beam-Columns by the Direct Strength Method, 1458
see Lecce, Maura, 1488
- Rassati, Gian A.
see Fortney, Patrick J., 2013
- Rastas, Lea
see Hedström, Annelie, 746
- Rathfelder, Klaus
see Rubin, Hillel, 589
- Rathje, Ellen M.
 Site-Specific Validation of Random Vibration Theory-Based Seismic Site Response Analysis, 863
see Zekkos, Dimitrios, 893
- Raudkivi, Arved J.
 Transition from Ripples to Dunes, 1063
- Raupach, M.
see Schleser, M., 1338
- Rauschkolb, Jon
see Pocock, James B., 325
- Raut, Ashok K.
see Indraratna, Buddhima, 929
- Ravens, Thomas M.
 Computational Fluid Dynamics Analysis of Flow in a Straight Flume for Sediment Erodibility Testing, 1899
- Rawashdeh, Samih Al
 Satellite Monitoring of Urban Spatial Growth in the Amman Area, Jordan, 1796
- Ray, Indrajit
see Chen, Yi, 216
see Davalos, Julio F., 1346
- Realph, Allison
see Chinowsky, Paul S., 1416
- Reay, Jaron T.
 Long-Term Durability of State Street Bridge on Interstate 80, 125
- Rebeiz, Karim S.
 Boardrooms of Energy Firms in the Post-Enron Era, 424
 Relationship between Governance Structure and Financial Performance in Construction, 1239
- Recker, Will
see Lee, Ming S., 1790
- Reckhow, David A.
see Ergas, Sarina J., 618
see Leshem, Ehud N., 619
- Reddi, Lakshmi, ed.
see Lu, Ning, ed., 2046
- Reddi, Lakshmi N.
see Kakuturu, Sai, 860
see Kakuturu, Sai, 861
- Redding, A. Z.
see Burns, S. E., 907
- Reddy, B. V. Venkatarama
 Strength and Elastic Properties of Stabilized Mud Block Masonry using Cement-Soil Mortars, 1313
 Tensile Bond Strength of Soil-Cement Block Masonry Couplets using Cement-Soil Mortars, 1265
- Reddy, Krishna R.
see Khodadoust, Amid P., 718
- Reddy, L. S.
see Raghuwanshi, N. S., 1078
- Reddy, N. Bhanu Prakasham
 Effect of Convergence on Nonlinear Flow in Porous Media, 973
- Reddy, T. S.
see Jalihal, Santosh A., 1714²
- Reeve, D. E.
 Explicit Expression for Beach Response to Non-Stationary Forcing near a Groyne, 1867
- Reible, Danny, P.E.
see Murphy, Paul, 688
- Reid, Robert L.
 A Healing Place, 1998
 Paving America From Coast to Coast, 2016
 Special Report: The Big Uneasy, 2033
 Vaporizing the Gathering Storm, 2005
- Reiner, Mark
 High-Volume Fly Ash Concrete: Analysis and Application, 1976
- Reinhard, Martin
see Yoo, H. Harold, 674
- Reinhardt, Hans-Wolf
see Aicher, Simon, 507
- Reinhart, Debra R., P.E.
see Jain, Pradeep, 671
- Reinhorn, Andrei M.
see Sivaselvan, Mettupalayam V., 516
- Reinosdotter, Karin
 Handling of Urban Snow with Regard to Snow Quality, 612
- Reinschmidt, Kenneth
 Economic Value of Building Faster, 363
- Ren, Qingwen
see Cao, Maosen, 531
- Ren, Wei-Xin
 Finite-Element Simulation and Design of Cold-Formed Steel Channels Subjected to Web Crippling, 1633

Rennie, Colin D.

Case Study of Precision of GPS Differential Correction Strategies: Influence on aDcp Velocity and Discharge Estimates, 955

Rens, Kevin

see Reiner, Mark, 1976

Repetto, Maria Pia

Bimodal Alongwind Fatigue of Structures, 1528

Ressler, J.

see Bradshaw, A. S., 1895

Restrepo, José I.

see Bozorgzadeh, Azadeh, 158

Reuter, J.

see Kavvas, M. L., 1099

Revelli, Roberto

see Ridolfi, Luca, 447

Revey, Gordon F., P.E.

Managing Rock Blasting Work in Urban Environments, 1978

Reynolds, Paul

Vibration Performance of a Large Cantilever Grandstand during an International Football Match, 1385

Rezgui, Yacine

Ontology-Centered Knowledge Management using Information Retrieval Techniques, 270

Paving the Way to the Vision of Digital Construction: A Strategic Roadmap, 364

Rha, ChangSoon

see Taciroglu, Ertugrul, 898

Rhee, Keunyoung

see Briaud, Jean-Louis, 788

Ribes, J.

see Chanona, J., 747

Rice, Robert W., P.E.

Design Factors Affecting the Flow of Water through Below-Ground Concrete Vaults, 737

Richards, Paul W.

Testing Protocol for Short Links in Eccentrically Braced Frames, 1554

Testing Protocol for Short Links in Eccentrically Braced Frames, 1555

Richardson, C. P.

Investigation of Boundary Shear Stress and Pollutant Detachment from Impervious Surface during Simulated Urban Storm Runoff, 592

Richardson, Jay B.

see Li, Yadong, P.E., 638

Richi, L.

Evaluating the Safety Risk of Narrow Medians using Reliability Analysis, 1701

Ricketts, C.

see Gadhamshetty, V., 429

see McShannon, J., 1424

Ricles, James M.

see Zhang, Xiaofeng, 1473

see Zhang, Xiaofeng, 1474

Ridolfi, Luca

Green's Function of the Linearized de Saint-Venant Equations, 447

Riebel, Florian

see Keller, Thomas, 244

Riedel, J. J.

see Fakhimi, A., 31

Rieker, Jeffrey D.

GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat, 1816

see Singh, Vijay P., 1175

Riemer, Michael F.

see Zekkos, Dimitrios, 893

Ries, Robert

see Bilec, Melissa, 1158

see Debella, David Col, 399

Rifai, Hanadi S.

see Suarez, Monica P., 770

Riggs, H. Ronald, P.E.

see Robertson, Ian N., 2009

Rilett, Laurence R., P.E.

see Vanajakshi, Lelitha, 263

Riley, David R.

see Horman, Michael J., 324

see Lapinski, Anthony R., 395

see Pulaski, Michael H., 91

see Thomas, H. Randolph, 1989

Rinaldi, Victor

Resistivity Survey of the Subsurface Conditions in the Estuary of the Rio de la Plata, 784

Rinaldi, Victor A.

Removal of Immiscible Contaminants from Sandy Soils Monitored by Means of Dielectric Measurements, 704

Rinehart, R.

see Beavers, J. E., P.E., 377

Ringler, Claudia

Valuing Fisheries and Wetlands using Integrated Economic-Hydrologic Modeling — Mekong River Basin, 1850

Ringô, Benoîte

see Morse, Brian, 184

see Morse, Brian, 185

Rischmoller, Leonardo

Improving Value Generation in the Design Process of Industrial Projects using CAVT, 1243

Rister, Brad

see Willett, David A., 1673

Ritchey, John K.

see Setareh, Mehdi, 1371

Ritdumrongkul, Sopon

Identification of the Location and Level of Damage in Multiple-Bolted-Joint Structures by PZT Actuator-Sensors, 1469

Rivard, Hugues

see Mora, Rodrigo, 253

AUTHOR INDEX

Rollins

- Rivero, Jesús A. Cacho
Enhancement of Anaerobic Digestion of Excess
Municipal Sludge with Thermal and/or Oxidative
Treatment, 670
- Rivière, N.
see Proust, S., 1026
- Rivin, Eugene I.
"Giant Superelasticity Effect" in NiTi Superelastic
Materials and Its Applications, 1360
- Rizkalla, Sami
see Rosenboom, Owen, 238
- Rizzo, Andrea
see Ekenel, Mahmut, 232
- Rizzo, Donna M.
see Rossman, Anthony J., 659
- Rizzo, Piervincenzo
see Matta, Fabio, 214
- Roarty, Hugh J.
Laboratory Measurements of Bed Load Sediment
Transport Dynamics, 1875
- Robayo, Oscar
see Whiteaker, Timothy L., 1074
- Robert, Jean-Loup
see Morse, Brian, 184
- Roberts, A. J.
see Ioualalen, M., 1870
- Roberts, Philip J. W.
see Daviero, Gregory J., 971
see Tian, Xiaodong, 972
- Robertson, Ian N.
Lessons from Katrina, 2009
- Robinson, Chet E.
see Brandes, Horst G., 1672
- Robinson, J. Paul
see Blatchley, Ernest R., III, 742
- Robinson, R. Bruce
Concentration — Duration — Frequency Curves for
pH in a Stream in the Great Smoky Mountains, 765
- Robinson, R. Bruce, P.E.
see Hedrick, Kevin P., 1129
- Robinson, Steve
Overtaking Rule Method for the Cleaning of Matched
License-Plate Data, 1730
- Robson, Forrest
see Cai, Hubo, 1646
- Roby, J. Chadwick
see Robinson, R. Bruce, 765
- Rocha, David
Sensitivity Analysis of Soil Hydraulic Properties on
Subsurface Water Flow in Furrows, 1211
- Rochell, Rodger, P.E.
see Stiller, William B., P.E., 142
- Rochfort, Quintin
see He, Cheng, 944
- Rock, Steven A.
see Albright, William H., 906
- Rockey, Christopher
see Iyengar, Hal, P.E., 2000
- Rockne, Karl J.
Nutrient Removal in a Cold-Region Wastewater Stabi-
lization Pond: Importance of Ammonia Volatiliza-
tion, 633
- Rodgers, Janise E.
Effects of Connection Fractures on Global Behavior of
Steel Moment Frames Subjected to Earthquakes,
1447
Seismic Response and Damage Detection Analyses of
an Instrumented Steel Moment-Framed Building,
1591
- Rodgers, Michael
Novel Hybrid Filter for the Treatment of Septic Tank
Effluent, 685
- Rodrigues, Carlos C.
see Silva, Manuel A. G., 1297
- Rodriguez-Marek, Adrian
Seismic Site Response for Near-Fault Forward Direc-
tivity Ground Motions, 928
see Wartman, Joseph, 1395
- Roe, Philip L.
see Vasconcelos, Jose G., 987
- Roesch, John
see Agbulos, Albert, 317
- Roesler, Jeffrey
see Rufino, Dulce, 1707
- Rogers, C. D. F.
Stress Path Testing of Realistically Cured Lime and
Lime/Cement Stabilized Clay, 1288
see Barker, J. E., 1281
- Rogers, Peter
see Brown, Casey, 1843
- Rojas, Eddy M.
Multi-Agent Framework for General-Purpose Situa-
tional Simulations in the Construction Management
Domain, 261
- Rojas, Eduardo
Analysis of Deep Moisture Barriers in Expansive Soils.
I: Constitutive Model Formulation, 43
Analysis of Deep Moisture Barriers in Expansive Soils.
II: Water Flow Formulation and Implementation, 44
- Rollings, Marian P.
see Rollings, Raymond S., 1370
- Rollings, Raymond S.
Investigation of Heaving at Holloman Air Force Base,
New Mexico, 1370
- Rollins, Kyle M.
Cyclic Lateral Load Behavior of a Pile Cap and
Backfill, 883
Pile Spacing Effects on Lateral Pile Group Behavior:
Load Tests, 894
Pile Spacing Effects on Lateral Pile Group Behavior:
Analysis, 895
see Cole, Ryan T., 884

- Romero, José Nicolás Ortiz
Set Sprinkler Irrigation and Its Cost, 1214
- Romero, José R.
see Anohin, Vadim V., 1047
- Romo, Miguel P.
see Rojas, Eduardo, 43
see Rojas, Eduardo, 44
- Rondinel-Oviedo, Efraín A.
see Wartman, Joseph, 1395
- Rose, Andrew T.
see Brandon, Thomas L., 802
- Rose, Geoffrey
see Li, Ruimin, 1721
- Rosenberg, David E.
Derived Operating Rules for Allocating Recharges and Withdrawals among Unconnected Aquifers, 1803
- Rosenboom, Owen
Behavior of Prestressed Concrete Strengthened with Various CFRP Systems Subjected to Fatigue Loading, 238
- Rosenwinkel, K.-H.
see Makinia, J., 636
- Rosowsky, David, P.E., ed.
see Crandell, Jay H., P.E., ed., 2083
- Rosowsky, David V.
see Stewart, Mark G., 1933
- Ross, Mark A.
see Geurink, Jeffrey S., 1102
- Rossman, Anthony J.
Low-Temperature Soil Heating using Renewable Energy, 659
- Rothe, Christopher A.
Using Patents to Advance the Civil Engineering Profession, 2020
- Rothermel, Joe S.
see Dettmers, Dana L., 1952
- Rouaud, Olivier
Behavior of an Air Curtain Subjected to Transversal Pressure Variations, 611
- Roufa, Garry, P.E.
see Kwasniewski, Leslaw, 1391
- Roumi, Farshid
see Shodja, Hossein M., 525
- Rousseau, Aymeric
see Sisipiku, Virginia P., 663
- Rowe, R. Kerry
Compatibility with Jet A-1 of a GCL Subjected to Freeze — Thaw Cycles, 920
- Rowlinson, Steve
Alliancing in Australia — No-Litigation Contracts: A Tautology?, 1414
- Roy, Amitava
Role of an Amorphous Silica in Portland Cement Concrete, 1348
- Royset, Johannes O.
Optimal Design with Probabilistic Objective and Constraints, 445
- Rteil, Ahmad A.
see Hamad, Bilal S., 222
- Rubin, Hillel
Enhancement of Remediation of NAPL Contaminated Fractured Permeable Formations — Modeling Study, 589
- Rüdinger, F.
Optimal Vibration Absorber with Nonlinear Viscous Power Law Damping and White Noise Excitation, 439
- Ruess, F.
Structural Design of a Lunar Habitat, 71
- Rufino, Dulce
Effect of Slab-Base Interaction on Measured Concrete Pavement Responses, 1707
- Ruggaber, Timothy P.
Enhancing Bioremediation with Enzymatic Processes: A Review, 1947
- Rujivipat, P.
see Abuel-Naga, H. M., 862
- Ruotoistenmäki, Antti
Comparison of Modeling and Measurement Accuracy of Road Condition Data, 1742
- Rushing, John F.
Evaluation of Dust Palliatives for Unpaved Roads in Arid Climates, 1394
- Rushton, Betty, ed.
see Field, Richard, ed., 2052
- Russell, Alan D.
see Aziz, Ahmed M. Abdel, 1139
- Russell, James E.
see Yi, Xianjie, 38
- Russell, Jefferey S., P.E.
Mentoring in Engineering, 1909
- Russell, Jeffrey S.
see Bank, Lawrence C., 208
- Ruth, Peter
Static Equivalency in Progressive Collapse Alternate Path Analysis: Reducing Conservatism While Retaining Structural Integrity, 1401
- Rutschmann, Peter
see Krüger, Susanne, 1024
- Ruud, Nels
see Marques, Guilherme F., 1849
- Ruwanpura, Janaka
see Moussa, Mohamed, 412
- Ruwanpura, Janaka Y.
Innovative Final-Year Undergraduate Design Project Course using an International Project, 1432
- Ruxton, S.
see Leijten, A. J. M., 1568
- Ryan, Keri L.
Estimating Seismic Demands for Isolation Bearings with Building Overturning Effects, 1548

- Rys, Malgorzata
see Nehate, Girish, 1739
- Saad, Bassam
3D FE Analysis of Flexible Pavement with Geosynthetic Reinforcement, 1705
- Saalfeld, Brad, P.E.
see Jones, Jason, P.E., 2012
- Saatcioglu, Murat
see Ozbakkaloglu, Togay, 243
- Sabnis, S. S.
see Bapat, J. D., 1310
- Sabourin, J. F.
see Abida, H., 1170
- Sacks, R.
Interpretation of Automatically Monitored Lifting Equipment Data for Project Control, 256
- Sadeghpour, Farnaz
Computer-Aided Site Layout Planning, 302
- Sadek, Adel
see Porter, Andrea, 596
- Saenz, Nicolas
Short and Medium Term Durability Evaluation of FRP-Confined Circular Concrete, 212
- Safferman, Steve
see Krou, Jean F., 733
- Sagüés, A. A.
Vibrational Tension Measurement of External Tendons in Segmental Posttensioned Bridges, 161
- Saha, Mithun Kumar
see Tan, Kiang Hwee, 236
- Sahoo, Bhabagrahi
Flood Estimation by GIUH-Based Clark and Nash Models, 1124
- Sahoo, Goloka Behari
Response of a Tropical Reservoir to Bubbler Destratification, 682
- Sahoo, T.
see Kumar, P. Suresh, 540
- Sahuquillo, Andrés
see Pulido-Velázquez, Manuel, 1848
- Saidi, M. Said
Development, Shake Table Testing, and Design of FRP Seismic Restrainers, 152
- Sain, Trisha
Damage Assessment in Beams using Inverse Method, 469
- Saito, Mitsuru
see Hereth, William R., 258
- Sakai, Junichi
Unloading and Reloading Stress - Strain Model for Confined Concrete, 1449
- Sakano, Masahiro
Monitoring of Steel Railway Floor Beams Prestressed by Steel Plates, 171
- Sakr, K.
Effects of Silica Fume and Rice Husk Ash on the Properties of Heavyweight Concrete, 1301
- Salama, Hassan K.
Effect of Heavy Multiple Axle Trucks on Flexible Pavement Damage using In-Service Pavement Performance Data, 1747
- Salameh, Zeina
see Rebeiz, Karim S., 1239
- Salas, J. D.
Stochastic Streamflow Simulation using SAMS-2003, 1177
- Saleh, Bassam
see Rawashdeh, Samih Al, 1796
- Salehian, Armaghan
Continuum Modeling of an Innovative Space-Based Radar Antenna Truss, 79
- Salem, O.
Accelerating the Construction of a Highway Bridge in Ohio, 1980
Lean Construction: From Theory to Implementation, 1256
- Salem, Ossama M., P.E.
see Hegab, Mohamed, P.E., 347
- Salgado, R.
see Foye, K. C., 888
see Foye, K. C., 889
- Salim, H. A.
Approximate Series Solution for Analysis of FRP Composite Highway Bridges, 225
- Salomons, Elad
see Grayman, Walter M., 1832
- Salvati, Lynn A.
Small-Strain Behavior of Granular Soils. II: Seismic Response Analyses and Model Evaluation, 877
see Pestana, Juan M., 876
- Samaan, Magdy
see Elmarakbi, Ahmed, 1743
- Samadhiya, N. K.
see Singh, A. K., 34
- Samani, Hossein M. V.
Optimization of Water Distribution Networks using Integer Linear Programming, 981
- Sammarco, Paolo
see Panizzo, Andrea, 1872
- Sample, David J.
Integrated Management of Irrigation and Urban Storm-Water Infiltration, 1839
- Samuels, William B.
RiverSpill: A National Application for Drinking Water Protection, 970
- Sana, Ahmad
Hydrodynamic Behavior of Asymmetric Oscillatory Boundary Layers at Low Reynolds Numbers, 1040
- Sanayei, Masoud
Damage Localization and Finite-Element Model Updating Using Multiresponse NDT Data, 172

- Sanchez, C. A.
see Furman, A., 1230
- Sánchez, José A.
see Castro, María, 1680
- Sanchez-Arcilla, Agustin, ed.
 Coastal Dynamics 2005 -- State of the Practice, 2055
- Sánchez-Tembleque, F.
see Puertas, J., 1069
- Sanchis, Luis H.
see Palau-Salvador, Guillermo, 1224
- Sancio, Rodolfo B.
see Bray, Jonathan D., 885
- Sanders, Brett F.
 Impact of Limiters on Accuracy of High-Resolution
 Flow and Transport Models, 443
see Begnudelli, Lorenzo, 968
see Pau, John C., 255
- Sands, Steven C.
see Grubb, Dennis G., 831
- Sandven, R.
see de Groot, M. B., 1877
- Sanford, Robert A.
see Brennan, Rachel A., 673
- Sangameswaran, S.
see Kura, B., 768
- Sanjou, Michio
see Nezu, Ichisa, 999
- Sansalone, Mary
see McLaskey, Gregory, 1389
- Santagata, Marika
 Laboratory Simulation of Field Sampling: Comparison
 with Ideal Sampling and Field Data, 810
- Santamaria, Jorge L.
see Fuller, Barry J., 2015
- Santamarina, J. Carlos
see Cho, Gye-Chun, 832
- Santos, Marcelo
see Koohzare, Azadeh, 1663
- Saouma, Victor E.
see Puntel, Eric, 556
- Sarathi, Partha
see Faruque, M. A. A., 989
- Sarawit, A.
see Schafer, B. W., 1459
- Sargand, Shad M.
 Rational Approach for Base Type Selection, 1746
- Sarkar, Arindam
see Dey, Subhasish, 957
- Sarkar, Partha P.
see Phelan, R. Scott, P.E., 133
see Wu, Fuqiang, 61
- Sarmiento, Oscar A.
 Critical Bed Shear Stress for Unisize Sediment, 949
- Sarnecki, Kathryn L.
see Wrenn, Brian A., 591
- Sarvi, Majid
see Li, Ruimin, 1721
- Sasani, M.
 Damping in Shear Beam Structures and Estimation of
 Drift Response, 522
- Sasani, Mehrdad
 New Measure for Severity of Near-Source Seismic
 Ground Motion, 1636
- Šašek, Ladislav
 Less is More, 2008
- Sasmal, Saptarshi
 Fuzzy Logic Based Condition Rating of Existing Rein-
 forced Concrete Bridges, 1392
- Sassa, Kyoji
see Gratchev, Ivan B., 790
- Sathananthan, Iyathurai
 Laboratory Evaluation of Smear Zone and Correlation
 between Permeability and Moisture Content, 867
- Satirapod, Chalermchon
 GPS Precise Point Positioning Software for Ground
 Control Point Establishment in Remote Sensing
 Applications, 1642
- Sato, Chikashi
 Simultaneous and Sequential Photosynthesis of TCE
 and PCE, 586
- Sause, Richard
 Fatigue Life of Girders with Trapezoidal Corrugated
 Webs, 1543
see Abbas, Hassan H., 517
see Driver, Robert G., 1457
- Saussus, D. R.
see Frost, J. D., 13
- Savage, Bruce M.
see Johnson, Michael C., 1068
- Savic, Dragan A.
see van Zyl, Jakobus E., 969
- Savšek-Safić, Simona
 Determination of Point Displacements in the Geodetic
 Network, 1648
- Savu, Paul
see Bucur, Daniel, 1231
- Sawada, Sumio
see Tobita, Tetsuo, 472
- Sawicki, A.
see de Groot, M. B., 1877
- Sayal, Gautam
see Rivin, Eugene I., 1360
- Sayed, T.
see Richl, L., 1701
- Sayed, Tarek
see Tabernero, Vener, 1763
- Sayles, Gregory D.
see Qi, Shuang, 594

- Scardina, Paolo**
Fundamentals of Bubble Formation during Coagulation and Sedimentation Processes, 664
- Scawthorn, Charles**
HAZUS-MH Flood Loss Estimation Methodology. I: Overview and Flood Hazard Characterization, 1928
HAZUS-MH Flood Loss Estimation Methodology. II: Damage and Loss Assessment, 1929
- Schaad, David E., P.E.**
Using UCS as a Surrogate Performance Standard at the NCSU NPL Site, 738
- Schaenzlin, J.**
see Ruess, F., 71
- Schafer, B. W.**
Complex Edge Stiffeners for Thin-Walled Members, 1459
see Buonopane, S. G., 1465
- Schafer, Benjamin W.**
see Yu, Cheng, 1490
- Schauer, Barbara A., P.E.**
see Schneider, Philip J., 1926
- Schexnayder, Cliff J.**
see Telem, Dory, 299
- Schilling, Paul J.**
see Roy, Amitava, 1348
- Shimek, Jennifer**
see Suarez, Monica P., 770
- Schleiss, Anton J.**
see Bollaert, Erik F. R., 5
see De Cesare, Giovanni, 754
see Manso, Pedro A., 3
- Schleser, M.**
Application of Polymers to Textile-Reinforced Concrete, 1338
- Schlosser, Peter**
see Ho, David T., 774
- Schmeckpeper, Edwin R.**
see Milligan, Jarrod H., 166
- Schmertmann, John H.**
Estimating Slope Stability Reduction due to Rain Infiltration Mounding, 890
- Schmid, Bernhard H.**
Artificial Neural Network Modeling of Dissolved Oxygen in a Wetland Pond: The Case of Hovi, Finland, 1090
- Schmidt, Arthur R.**
see León, Arturo S., 1010
- Schmidt, David P.**
see Kennedy, Matthew G., 710
- Schmitz, G. H.**
see Wöhling, Th., 1206
- Schneider, James A.**
see Chung, Shin Fun, 887
- Schneider, Lauren E.**
Assessing the Hydrologic Performance of Best Management Practices, 1101
- Schneider, Philip J.**
HAZUS — Its Development and Its Future, 1926
- Schneider, William H., IV**
see Fitzpatrick, Kay, P.E., 1684
- Schober, Hans**
The Berlin Connection, 2025
- Scholtes, Stefan**
see de Neufville, Richard, 1147
- Scholz, Miklas**
see Zheng, Jinghui, 1775
- Schriver, W. R.**
see Beavers, J. E., P.E., 377
- Schultz, Arturo E.**
see Berglund, Evan M., 121
- Schwarz, Charles R.**
Statistics of Range of a Set of Normally Distributed Numbers, 1662
- Schwarz, Lois G.**
Hydrocarbon Residuals and Containment in Microfine Cement Grouted Sand, 1284
- Schwingshackl, C. W.**
Detrimination of Honeycomb Material Properties: Existing Theories and an Alternative Dynamic Approach, 74
- Scott, B.**
see Foye, K. C., 888
see Foye, K. C., 889
- Scott, David W.**
see Dempsey, Dwight D., 228
- Scott, Michael H.**
Plastic Hinge Integration Methods for Force-Based Beam — Column Elements, 1462
- Scruggs, J. T.**
Optimal Nonlocal and Asymmetric Structural Damping using Regenerative Force Actuation Networks, 532
- Scullion, Tom**
see Chen, Dar-Hao, 1140
- Scullion, Tom, P.E.**
see Chen, Dar Hao, 1690
- Seals, Roger K.**
see Roy, Amitava, 1348
- Sears, K.**
Density and Activity Characterization of Activated Sludge Flocs, 724
- Sebastian, Wendel M.**
Performance Implications of Imperfectly Plastic Material in Metallic Structures with Nonmetallic Reinforcement, 1461
- Seco, A.**
see Chanona, J., 747
- Seed, R. B.**
see Moss, R. E. S., 812
see Moss, R. E. S., 873
- Seed, Raymond B.**
see Cetin, K. Onder, 10

- Segal, Fred**
Energy Evaluation for Ramberg — Osgood Hysteretic Model, 529
- Seible, F.**
see Chou, C. C., 118
- Seica, Michael V.**
Simplified Numerical Method to Evaluate the Mechanical Strength of Cast Iron Water Pipes, 1143
- Seignol, Jean-François**
see Multon, Stéphane, 1317
- Sekhar, M.**
Numerical Modeling and Analysis of Solute Velocity and Macrodistribution for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion, 1104
- Selekwa, Majura**
see Mussa, Renatus, 1693
- Seligson, Hope**
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Sellier, Alain**
see Poyet, Stéphane, 1328
- Semmens, Michael**
see Weiss, Jeffrey D., 717
- Sen, Tapan K.**
Probability of Fatigue Failure in Steel Catenary Risers in Deep Water, 539
- Sena Cruz, José M.**
Bond Behavior of Near-Surface Mounted CFRP Laminated Strips under Monotonic and Cyclic Loading, 218
- Senior, Matthew J.**
see Guo, Yiping, 1127
- Sennah, Khaled**
see Elmarakbi, Ahmed, 1743
- Seo, Il Won**
see Baek, Kyong Oh, 1033
- Seo, Ji Hyun**
see Park, Hyo Seon, 1625
- Seppälä, Tomi**
see Ruotoistenmäki, Antti, 1742
- Seracino, R.**
Partial Interaction Shear Flow Forces in Continuous Composite Steel-Concrete Beams, 1460
see Liu, I. S. T., 199
see Liu, I. S. T., 200
- Serrano, Carlos**
see Rinaldi, Victor, 784
- Serrano, Sergio E.**
Development and Verification of an Analytical Solution for Forecasting Nonlinear Kinematic Flood Waves, 1107
- Serrette, R.**
Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives, 1497
- Setareh, Mehdi**
Pendulum Tuned Mass Dampers for Floor Vibration Control, 1371
- Seto, K.**
see Christenson, Richard E., 1524
- Severino, Edward**
see El-Tawil, Sherif, P.E., 1
- Seyyedien, Hamid**
Effect of Internal Moment Release on the Eigenfrequencies of Combined Linear Systems, 519
- Sezen, Halil**
Seismic Performance of Industrial Facilities Affected by the 1999 Turkey Earthquake, 1367
- Shackelford, Charles D.**
see Henning, John T., 892
- Shafizadeh, Kevan**
Statistical Modeling of User Perceptions of Infrastructure Condition: Application to the Case of Highway Roughness, 1677
- Shah, S. P.**
see Kuder, Katherine G., 1309
- Shahawy, Mohsen**
see Chaallal, Omar, 191
- Shahriari, H.**
Simulating Activated Sludge System by Simple-to-Advanced Models, 587
- Shahrokhnia, M. A.**
Dimensionless Stage — Discharge Relationship in Radial Gates, 1184
- Shahrooz, Bahram M., P.E.**
see Fortney, Patrick J., 2013
- Shahrour, Isam**
see Lancelot, Laurent, 582
- Shaikhutdinov, Rustem**
see Ching, Jianye, 474
- Shalabey, M. E. E.**
Numerical Model of Saltwater Transport toward a Pumping Well, 1103
- Shamir, Eylon**
Evaluation of the National Weather Service Operational Hydrologic Model and Forecasts for the American River Basin, 1111
- Shan, Bo**
Residual Performance of FRP-Retrofitted RC Columns after being Subjected to Cyclic Loading Damage, 219
- Shane, Jennifer S.**
Legal Challenge to a Best-Value Procurement System, 1906
- Shang, Chii**
see Fang, Qian, 584
- Shang, J. Q., P.E.**
Site-Specific Study on Stabilization of Acid-Generating Mine Tailings using Coal Fly Ash, 1277
- Shanli, U.**
see Lazarovitch, N., 1225

AUTHOR INDEX

Sheppard

- Shanmugam, Jayasiri
see Shao, Yixin, 241
- Shannon, David M.
see Elton, David J., P.E., 1417
- Shao, J. F.
 Elastoplastic Damage Modeling in Unsaturated Rocks and Applications, 23
- Shao, Yi-Chen
see Chen, Liang-Chien, 1651
- Shao, Yixin
 Characterization of a Pultruded FRP Sheet Pile for Waterfront Retaining Structures, 1333
 Moment Capacities and Deflection Limits of PFRP Sheet Piles, 241
see Monkman, Sean, 1351
- Shapira, Aviad
see Telem, Dory, 299
see Telem, Dory, 403
- Sharaf, Mohamed H.
 CFRP Strengthening for Punching Shear of Interior Slab — Column Connections, 230
- Sharara, Lokman M.
see Ezeldin, A. Samer, 353
- Sharda, J.
 Modeling of Multilayer Composite Fabrics for Gas Turbine Engine Containment Systems, 62
- Sharif, Ali
see Hanna, Adel M., 20
- Sharkey, L. J.
see Hunt, W. F., 1232
- Sharma, A.
see Srikanthan, R., 1094
- Sharma, Anil Kumar
 Zirconia-Supported Copper Oxide — A Catalyst for Removal of Vehicular Exhaust Gas Pollutants, 707
- Sharma, Anuj
see Abbas, Montasir, P.E., 1702
- Sharma, Anupma
see Shalabey, M. E. E., 1103
- Sharma, K. G.
see Varadarajan, A., 35
- Sharma, Shambhu S.
 Monotonic and Cyclic Behavior of Two Calcareous Soils of Different Origins, 925
- Sharma, Vishal
 Residential Construction Lot Grading Approval Process Optimization: Case Study of City of Edmonton, 409
- Sharp, Sandra
see Newson, Tim, 792
- Sharrard, Aurora L.
see Bilec, Melissa, 1158
- Shastri, Y.
 Sensor Placement in Water Networks: A Stochastic Programming Approach, 1820
- Shazali, Mohammed A.
 Predicting Residual Strength in Unsaturated Concrete Exposed to Sulfate Attack, 1298
- Shea, Kristina
 Improving Full-Scale Transmission Tower Design through Topology and Shape Optimization, 1518
- Sheibany, Farrokh
 Effects of Environmental Action on Thermal Stress Analysis of Karaj Concrete Arch Dam, 487
- Sheikh, Shamim A.
see Montoya, Esneyder, 1318
- Sheinman, Izhak
see Jabareen, Mahmood, 574
- Shekar, Vimala
see Laosiriphong, Krit, 153
- see* Prachasaree, Woraphot, 146
- Shekhar, Shashank
see Rao, S. V. N., 1118
- Shen, Chengyue
see Blatchley, Ernest R., III, 742
- Shen, Hayley H.
see Ji, Shunying, 566
- Shen, Jinyin
see Xu, Xingxin, 932
- Shen, Li Yin
 Strengths, Weaknesses, Opportunities, and Threats for Foreign-Invested Construction Enterprises: A China Study, 384
- Shen, Li-Yin
 Contractor Key Competitiveness Indicators: A China Study, 329
- Shen, Qiang
 Seismic Design and Analytical Modeling of Posttensioned Hybrid Coupled Wall Subassemblages, 1539
see Kurama, Yahya C., 1538
- Shen, Qiping
see Yu, Ann T. W., 404
- Shen, Shuailong
see Hong, Zhenshun, 806
- Shen, Shui-Long, ed.
see Porbaha, Ali, ed., 2072
- Shen, Y. M.
see Zheng, Y. H., 1865
- Sheng, Daichao
see Huang, Wenxiong, 45
- Shenton, Harry W., III
 Damage Identification Based on Dead Load Redistribution: Methodology, 1562
see Howell, Daniel A., 170
- see* Hu, Xiaofeng, 1563
- see* Johnston, Adrienne R., 1579
- Shepherd, W. J.
see Grosskopf, K. R., 419
- Sheppard, D. Max
 Live-Bed Local Pier Scour Experiments, 995

- Sherif, Ahmed H.
see El Sherbiny, Ahmed H., 729
- Sherman, Lee C.
see Charbeneau, Randall J., 978
- Shi, H.
see Aubeny, C. P., 848
- Shi, Jonathan J.
see Lee, Dong-Eun, 296
- Shi, Jonathan Jingsheng
see Zhang, Hong, 413
- Shi, Jun-Yang
see Chen, Shi-Shuenn, 838
- Shi, Qixin
see Zheng, Weizhong, 1675
- Shi, Xiaomin
see Zhang, Yin, 144
- Shi, Xing
Mechanics and Test Study of Two-Dimensional Flexible Membranes, 92
- Shi, Yu-E
see Nguyen, Dan K., 958
- Shibata, Tomoyuki
see Meeroff, Daniel E., 683
- Shieh, Chjeng-Lun
see Tseng, Chih-Ming, 1012
- Shield, Carol
see Zhao, Jian, 1584
- Shields, F. Douglas, Jr.
see Chao, Xiaobo, 753
- Shih, Naai-Jung
3D Scan Information Management System for Construction Management, 301
- Shih, Pai-Huang
see Chien, Yi-Chi, 716
- Shillinglaw, Scott
see MacDougall, Colin, 135
- Shimada, Masashi
Time-Line Interpolation Errors in Pipe Networks, 961
- Shimizu, Yoshihisa
Development of Real-Time Safety Control System for Urban Gas Supply Network, 801
- Shimotori, Tsutomu
High-Density Polyethylene Membrane Containing Fe⁰ as a Contaminant Barrier, 690
- Shin, Seungcheol
see Elsworth, Derek, 915
- Shin, Sungwon
see Suh, Kyung-Duck, 1863
- Shintani, Tetsuya
see Umeyama, Motohiko, 1901
- Shiramizu, Sharilyn
Influence of the National Performance Review on Supervisors in Government Organizations, 1920
- Shlemon, Edwin, P.E.
see Zekioglu, Atilla, P.E., 2040
- Shoda, Daisuke
see Kawabata, Toshinori, 903
- Shodja, Hossein M.
Effective Moduli of Coated Particulate Composites with BCC Structure at High Concentration, 525
see Kamali, Mohammad T., 524
- Shoemaker, Leslie
see Zou, Rui, 644
- Shohet, Igal M.
Key Performance Indicators for Strategic Healthcare Facilities Maintenance, 322
- Shome, M. L.
Flood Plain Filling by a Monoclonal Flood Wave, 984
- Shoop, S.
Seasonal Deterioration of Unsurfaced Roads, 857
- Show, Kuan-Yeow
Thermochemical Analysis in the Presintering Phase of Aggregates from Sludge-Marine Clay Mixes, 1267
- Shrivastava, Prabhat
Operational Integration of Suburban Railway and Public Buses — Case Study of Mumbai, 1718
- Shrivastava, R. K.
see Gupta, Ajay Kumar, 744
- Shrope, Stephen J., P.E.
see Moyano, David C., P.E., 1996
- Shubov, Marianna A.
Flutter Phenomenon in Aeroelasticity and its Mathematical Analysis, 58
- Shushkewich, Kenneth W., P.E.
Transverse Analysis of Strutted Box Girder Bridges, 107
- Shuster, Laurie A.
Inventive Maintenance, 2017
- Shuy, E. B.
see Chua, Lloyd H. C., 511
- Shyu, C. T.
see Wight, R. G., 151
- Shyy, Wei
see Singh, Rajkeshar, 84
- Siddheshwar, Pradeep G.
see Chan, Andy T., 444
- Sieglwart, Michael
Influence of Electrochemical Chloride Extraction on the Performance of Prestressed Concrete under Dynamic Loading Conditions, 1355
- Siem, Jan
see Meløysund, Vivian, 1618
- Silva, Manuel A. G.
Size and Relative Stiffness Effects on Compressive Failure of Concrete Columns Wrapped with Glass FRP, 1297
- Silvadasan, X.
see Kura, B., 768

- Silvestre, Nuno
Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediated Stiffeners, 1491
- Simon, Michelle A., P.E.
Method for Measuring Air-Immiscible Liquid Partition Coefficients, 599
- Simons, Roland
see Rowlinson, Steve, 1414
- Simpson, Angus
see Vitkovský, John, 1001
- Simpson, Angus R.
see Vitkovský, John P., 1000
- Sinfield, Joseph V.
see Santagata, Marika, 810
- Singh, A. K.
Design of a Rigid Cutoff Wall, 34
- Singh, Amarjit
see Shiramizu, Sharilyn, 1920
- Singh, D.
Contractor Selection Criteria: Investigation of Opinions of Singapore Construction Practitioners, 387
- Singh, K. S.
see Tai, C. S., 669
- Singh, Kripa Shankar
Sludge Blanket Height and Flow Pattern in UASB Reactors: Temperature Effects, 699
- Singh, M. P.
Seismic Design Forces. I: Rigid Nonstructural Components, 1589
Seismic Design Forces. II: Flexible Nonstructural Components, 1590
- Singh, R.
see Raghuvanshi, N. S., 1078
- Singh, Raj Mohan
Identification of Groundwater Pollution Sources using GA-Based Linked Simulation Optimization Model, 1081
- Singh, Rajendra
see Sahoo, Bhabagrahi, 1124
- Singh, Rajkeshar
Multiphase/Multidomain Computations using Continuum and Lattice — Boltzmann Methods, 84
- Singh, Shikha
A Review of Wind-Resource-Assessment Technology, 420
- Singh, Sushil K.
Diagnostic Curve for Estimating Soil Dispersivity and Instantaneously Injected Mass, 1194
Flow Depletion Induced by Pumping Well from Finite Length of Stream, 1222
Flow Depletion of Semipervious Streams Due to Unsteady Pumping Discharge, 1209
Optimal Instantaneous Unit Hydrograph from Multisource Data, 1198
Simplified Kernel Method for Flow to Large Diameter Wells, 1173
- Singh, V. P.
see Jain, M. K., 1136
see Jain, Sharad K., 1134
see Zhang, L., 1086
- Singh, Vijay P.
Hydrologic Modeling Inventory: Cooperative Research Effort, 1175
see Tayfur, Gokmen, 1064
- Singha, Malay K.
Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermomechanical Loads, 548
- Sinha, Braj
see Pedreschi, Remo, 1308
- Sinha, Sunil K.
see Thomas, H. Randolph, 1989
- Sinn, Robert, P.E.
see Iyengar, Hal, P.E., 2000
- Sinn, Robert C.
see Kijewski-Correa, Tracy, 1588
- Sinnakaudan, S. K.
Multiple Linear Regression Model for Total Bed Material Load Prediction, 983
- Siriya, Praveen
see Elmarakbi, Ahmed, 1743
- Sisiopiku, Virginia P.
Technology Evaluation of Hydrogen Light-Duty Vehicles, 663
- Sitar, Nicholas
see Nova-Roessig, Lili, P.E., 813
- Sivacoumar, R.
Particulate Matter from Stone Crushing Industry: Size Distribution and Health Effects, 628
- Sivaselvan, Mettupalayam V.
Lagrangian Approach to Structural Collapse Simulation, 516
- Sixto, E.
see Puertas, J., 1069
- Skerlj, Peter F.
see Vickery, Peter J., 1930
see Vickery, Peter J., 1931
- Skibniewski, Miroslaw J.
see Castro-Lacouture, Daniel, 248
see Nititharmyong, Pollaphat, 295
- Skinner, Graeme D.
see Kennedy, Matthew J., 48
- Skipper, Charles O.
Influences Impacting Leadership Development, 1245
- Skipper, Charles O., P.E.
Assessment with 360° Evaluations of Leadership Behavior in Construction Project Managers, 1246
- Skitmore, Martin
see Drew, Derek S., 330
- Skolicki, Zbigniew
Reduction of Physical Threats to Water Distribution Systems, 1822

Skutezky, Trevor

see Fam, Amir, 205

Slagle, James H.

see U, José Terán, 1994

Slattery, Dianne Kay

Case Study of Factors Affecting Urban Residential Construction in St. Louis, 1786

Slavsky, Eugene

see Sanayei, Masoud, 172

Sleep, Brent E.

see Béranger, Sandra C., 681

Slutzman, Jonathan E.

Effects of Flood Control Structures on Flood Response for Hurricane Floyd in the Brandywine Creek Watershed, Pennsylvania, 1115

Smilowitz, Robert, P.E.

see Ettouney, Mohammed, P.E., 1406

Smith, Brian L., ed.

see Wang, Kelvin C. P., ed., 2049

Smith, D. W.

see Fletcher, H. R., 608

Smith, David

see Huang, Wenxiong, 45

Smith, Gary R., P.E.

see Hegab, Mohamed, P.E., 347

Smith, Ian F. C.

see Shea, Kristina, 1518

Smith, J. A.

see Burns, S. E., 907

Smith, J. T.

see Hunt, W. F., 1232

see Jia, Z., 1182

Smith, James A.

see Bartelt-Hunt, Shannon L., 686

see Slutzman, Jonathan E., 1115

Smith, L. C.

see Cai, Hubo, 1646

Smith, Roger E.

see Woolhiser, David A., 1083

Smith, Simon D.

see Carter, Gregory, 308

Smith, Stephen R.

see Campos, Luiz C., 697

see Campos, Luiz C., 698

Smith, Tony E.

see Casello, Jeffrey M., 1800

Smith, Winter

see Lange, Clifford R., 645

Smith-Pardo, J. Paul

Distribution of Compressive Stresses in Transversely Posttensioned Concrete Bridge Decks, 110

Smout, I. K.

Productivity and Equity of Different Irrigation Schedules under Limited Water Supply, 1203

Smout, Ian K.

Performance-Based Optimization of Land and Water Resources within Irrigation Schemes. II: Application, 1202

see Gorantiwar, Sunil D., 1201

Smyth, Andrew W.

Energy Capacity Criterion for the Design of Columns against Collapse, 493

see Pei, Jin-Song, 571

see Pei, Jin-Song, 572

Smyth, Hedley J.

see Edkins, Andrew J., 1415

Snaith, Martin S.

see Ortiz-García, José J., 1678

Snow, Daniel

see Adam, Michael, 763

Snow, Daniel D.

see Young, Travis S. M., 1949

Snyder, Richard

see Consoli, Simona, 1164

see Consoli, Simona, 1165

Snyder, Richard L.

see Ventura, Francesca, 1181

Soares, E. P.

see Mendonça, A. A., 1276

Sobotka, Anna

see Jaskowski, Piotr, 374

Soetanto, R.

Empirical Evaluation of Structural Frame Performance Criteria: Realizing the Potential of Hybrid Concrete Construction, 316

Soh, C. K.

see Naidu, A. S. K., 267

Soh, Chee Kiong

see Yang, Yaowen, 66

Soibelman, L.

see Ng, H. S., 1142

Soibelman, Lucio

see Brilakis, Ioannis, 365

Solari, Giovanni

see Repetto, Maria Pia, 1528

Solomon, J.

see Salem, O., 1256

Soltani, Ali

Analyzing the Impacts of Microscale Urban Attributes on Travel: Evidence from Suburban Adelaide, Australia, 1787

Son, Bosik

see Nepal, Madhav Prasad, 306

Song, Inhong

Comparison of Crop Contamination by Microorganisms during Subsurface Drip and Furrow Irrigation, 725

Song, Jongchul

Tracking the Location of Materials on Construction Job Sites, 378

- Song, Junho**
Generalized Bouc - Wen Model for Highly Asymmetric Hysteresis, 495
Joint First-Passage Probability and Reliability of Systems under Stochastic Excitation, 441
- Song, Lingguang**
Virtual Shop Model for Experimental Planning of Steel Fabrication Projects, 281
- Song, Seong Hyeok**
Simulation of Crack Propagation in Asphalt Concrete using an Intrinsic Cohesive Zone Model, 563
see Buttlar, William G., 459
- Song, Weon-Keun**
Thermal Transfer Analysis of a Freezing Soil Medium with an Embedded Pipeline, 181
- Song, Yuanbin**
Modeling of Functional Construction Requirements for Constructability Analysis, 418
- Sonnad, Jagadeesh R.**
Turbulent Flow Friction Factor Calculation using a Mathematically Exact Alternative to the Colebrook — White Equation, 1017
- Sopian, K.**
see Othman, M. Y., 433
see Othman, M. Y., 434
- Sorenson, Kent S., Jr., P.E.**
see Dettmers, Dana L., 1952
- Sotolino, Elisa D.**
see Chung, Wonseok, 122
- Soudki, K.**
see Al-Mayah, A., 1358
- Soudki, K. A.**
see Harajli, M. H., 229
- Soudki, Khaled**
see El Maaddawy, Tamer, 202
- Soudki, Khaled A.**
see Chahrouh, Ali H., 211
see Sharaf, Mohamed H., 230
- Soulis, E. D.**
see Bingeman, A. K., 1117
- Sparks, Richard E.**
see Nedović-Budić, Zorica, 1795
- Spaulding, Malcolm, P.E., ed.**
Estuarine and Coastal Modeling — Proceedings of the Ninth International Conference, 2064
- Spencer, B. F., Jr.**
see Christenson, Richard E., 462
see Christenson, Richard E., 1524
- Spengler, Steven**
see Babcock, Roger, Jr., 696
- Spring, V.**
see Makinia, J., 636
- Spiegelholz, Peregrin**
Physical Risk Factors and Controls for Musculoskeletal Disorders in Construction Trades, 393
- Spiller, Martin**
see Rubin, Hillel, 589
- Spinelli, Davide**
see Paolucci, Roberto, 455
- Sputo, Thomas, P.E.**
see Green, Perry S., 1493
- Sridhar, V.**
Assessment of Soil Moisture Dynamics of the Nebraska Sandhills using Long-Term Measurements and a Hydrology Model, 1216
- Sridharan, T.**
see Maheswari, J. Uma, 336
- Srikanthan, R.**
Comparison of Two Nonparametric Alternatives for Stochastic Generation of Monthly Rainfall, 1094
- Srinivas, S.**
Multivariate Simulation and Multimodal Dependence Modeling of Vehicle Axle Weights with Copulas, 1767
- Srinivas, Y.**
Large-Eddy Simulation of High Reynolds Number Turbulent Flow Past a Square Cylinder, 468
- Srinivasan, K.**
see Yandamuri, S. R. Murty, 1814
- Sriram, Anant**
see Anand, Gunwant Singh, 634
- Sritharan, Sri**
see Suleiman, Muhannad T., 1611
- Srivastava, Rajesh**
Aquifer Diffusivity Estimation from Response to Stream Stage Variation, 1100
- Srouf, Issam M.**
Linear Programming Approach to Optimize Strategic Investment in the Construction Workforce, 402
What Does the Construction Industry Value in its Workers?, 392
- Stalnaker, Judith J., P.E.**
see Marxhausen, Peter D., P.E., 1514
- Stander, E.**
Ice Stresses in Reservoirs: Effect of Water Level Fluctuations, 183
- Stander, Ed**
see Morse, Brian, 184
see Morse, Brian, 185
- Standridge, Jon H.**
see Xagorarakis, Irene, 692
- Stansby, Peter K.**
Limitations of Depth-Averaged Modeling for Shallow Wakes, 1004
- Stanton, John F.**
see Hoehler, Matthew S., 1542
- Starkova, O. A.**
see Aiello, M. A., 1340
- Staudinger, Tiffany J.**
Comparative Analysis of Water Vulnerability Assessment Methodologies, 1146

- Steenhuis, Tammo S.
see Collick, Amy S., 731
- Stefan, Heinz G.
see Williams, Sterling Greg, 187
- Steffler, P. M.
see Edwini-Bonsu, S., 1008
see Edwini-Bonsu, S., 1009
see Shome, M. L., 984
- Steinemann, Anne C.
 Developing Multiple Indicators and Triggers for Drought Plans, 1817
- Steiner, R.
see McShannon, J., 1424
- Stenstrom, Michael K.
see Khan, Sabbir, 629
see Kim, Lee-Hyung, 711
see Li, Yingxia, 695
- Stephanedes, Yorgos J.
see Tzamali, Eleftheria, 1755
- Stephens, Mark
see Vitkovský, John, 1001
- Stern, Jennifer
see Abichou, Tarek, 607
- Stevens, David K.
see Chen, Shyi-Tien, 678
- Stewart, J. P.
see Moss, R. E. S., 873
- Stewart, Jonathan P.
see Chu, Daniel B., 922
- Stewart, Mark G.
 Terrorism Risks and Blast Damage to Built Infrastructure, 1933
- Stiassnie, Michael
 Prediction of Long Forcing Waves for Harbor Agitation Studie, 1871
- Stiemer, Siegfried
see Varoglu, Erol, 1578
- Stiller, William B., P.E.
 Testing, Analysis, and Evaluation of a GFRP Deck on Steel Girders, 142
- Stine, Scott W.
see Song, Inhong, 725
- Stockstill, Richard L.
see Tate, Jennifer N., 1015
- Stoekenius, T.
see Eisinger, D. S., 1756
- Stoecker, Arthur L.
see Ancev, Tihomir, 1208
- Stojadinovic, B.
see Mackie, K. R., 1564
- Stojadinovic, Bozidar
 Event-Driven Control System for Geographically Distributed Hybrid Simulation, 1446
- Stokoe, Kenneth H., II
see Zekkos, Dimitrios, 893
- Stone, Michael
see Vijayaraghavan, Krishna, 680
- Stopar, Bojan
see Savšek-Safić, Simona, 1648
- Stoschek, Oliver
 Water Exchange and Sedimentation in an Estuarine Tidal Harbor using Three-Dimensional Simulation, 1893
- Stothoff, Stuart A.
see Woolhiser, David A., 1083
- Strand, R. J.
see Bautista, E., 1180
- Street, Robert L.
see Zedler, Emily A., 950
- Stroup-Gardiner, Mary
see Lange, Clifford R., 645
- Struble, Leslie J.
see Cardenas, Henry E., 1323
- Struck, Scott D., ed.
see Field, Richard, ed., 2052
- Stubbs, Dale R., P.E.
see Masters, Kathryn, P.E., 2028
- Stubbs, Norris
see Park, Sooyong, 1520
- Stuckey, David C.
see Hu, Alan Y., 604
- Sture, Stein
see Xi, Yunping, 561
- Sturm, Terry W.
 Scour around Bankline and Setback Abutments in Compound Channels, 933
- Styles, Richard
 Application of a Bottom Boundary Layer Model in Contrasting Wave and Current Environments: Grays Harbor, Washington, 1890
- Su, Chengyi
see Zhou, Ping, 597
- Su, H.
see Banerjee, J. R., 59
- Su, Huaizhi
see Dai, Huichao, 349
- Su, Y. Y.
 Integration of Construction As-Built Data via Laser Scanning with Geotechnical Monitoring of Urban Excavation, 410
- Suárez, J.
see Jácome, A., 727
- Suarez, Jorge
 Polyethylene Duct Cracking on Posttensioning Tendons in Florida Segmented Bridges, 1327
- Suárez, L. E.
see Singh, M. P., 1589
see Singh, M. P., 1590
- Suarez, Monica P.
 Dioxin in Storm-Water Runoff in Houston, Texas, 770

AUTHOR INDEX

Sylvie

- Subbarao, Chillara
see Ghosh, Ambarish, 1263
see Ghosh, Ambarish, 1273
- Subramaniam, Kolluru
see Ali-Ahmad, Mohamad, 530
- Suen, Henry C. H.
see Chan, Edwin H. W., 332
- Suetomi, Iwao
see Shimizu, Yoshihisa, 801
- Sugano, Takahiro
see Ashford, Scott A., 793
- Suh, Kyung-Duck
Hydrodynamic Characteristics of Pile-Supported Vertical Wall Breakwaters, 1863
- Suh, Wonho
Relationship between Speed, Lateral Placement, and Drivers' Eye Movement at Two-Lane Rural Highways, 1734
- Suidan, Makram T.
see Boufadel, Michel C., 668
see Lei, Li, 626
see Qi, Shuang, 594
see Rivero, Jesús A. Cacho, 670
- Suita, Keiichiro
see Inoue, Kazuo, 1525
see Okazaki, Taichiro, 1557
- Sukumaran, Praveen
Model for Analysis of Factors Affecting Construction Schedule in Highway Work Zones, 1717
Validation of a Model for Predicting Schedule Changes in Highway Work Zones — Case Studies, 1733
- Suleiman, Muhannad T.
Cyclic Lateral Load Response of Bridge Column-Foundation-Soil Systems in Freezing Conditions, 1611
Load Transfer in Rammed Aggregate Piers, 51
- Sullivan, Bart, P.E.
Starting Over, 2035
- Sullivan, David
see Beltaos, Spyros, 1056
- Sullivan, Edward, P.E.
Benefit-Cost Analysis of Variable Pricing Projects: SR-91 Express Lanes, 1683
see Burris, Mark, P.E., 1682
- Sumer, Ali
see Fleischman, Robert B., 1510
- Sumer, B. M.
see Damgaard, J. S., 1883
- Sumer, B. Mutlu
Critical Flotation Density of Pipelines in Soils Liquefied by Waves and Density of Liquefied Soils, 1879
Liquefaction around Pipelines under Waves, 1880
see Dey, Subhasish, 959
- Sun, Kuo-Shun
see Huang, Rong-yau, 346
- Sun, Lu
Stochastic Spatial Excitation Induced by a Distributed Contact on Homogenous Gaussian Random Fields, 505
- Sun, Shuang-Ke
see Zhao, Can-Hua, 937
- Sun, Xin
see Garber, Nicholas J., 1665
- Sundararajan, N.
see Ganapathi, M., 528
- Surampalli, R. Y.
see Brar, Satinder K., 1946
see Verma, M., 1969
- Surampalli, Rao Y., ed.
see Irene, M. C. Lo, ed., 2097
- Surjadinata, J.
Combined Finite- and Boundary-Element Analysis of the Effects of Tunneling on Single Piles, 49
- Sutherland, P. Lorenz
see Wittler, James M., 1213
- Suthiwarapirak, Peerapong
Fatigue Analysis of RC Slabs and Repaired RC Slabs Based on Crack Bridging Degradation Concept, 1532
- Suwito
see Xi, Yunping, 561
- Suzuki, Kiichi
Double Strain Softening and Diagonally Crossing Shear Bands of Sand in Drained Triaxial Tests, 57
Principal Deviatoric Strain Increment Ratios for Sand having Inherent Transverse Isotropy, 47
- Suzuki, Takanobu
see Shimizu, Yoshihisa, 801
- Svecova, Dagmar
see Hay, Shaun, 237
see Mota, Carlos, 206
- Sveinsson, O. G.
see Salas, J. D., 1177
- Svinkin, Mark R.
Minimizing Construction Vibration Effects, 11
Mitigation of Soil Movements from Pile Driving, 1977
- Swanson, J.
see Salem, O., 1980
- Swanson, James A.
see Kayser, Caroline R., 114
- Swarnalatha, S.
see Sivacoumar, R., 628
- Syal, M.
see Banerjee, D., 103
- Syal, Matt
see Jeong, Jae G., 1771
see Jeong, Jae G., 1797
- Sylvie, Jonathan R.
see Matthews, Benjamin, 1259

- Symmes, Arthur H., P.E.
see Lakota, Gregory J., P.E., 2037
- Szajman, Alberto
see Chinowsky, Paul S., 1416
- Szilagyi, Jozsef
Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites, 1097
- Szydio, A.
see Kruszyna, M., 1757
- Tabak, Henry H.
see Lei, Li, 626
- Taberner, Vener
Upstream Signalized Crossover Intersection: An Unconventional Intersection Scheme, 1763
- Tabsh, Sami W.
Simplified Structural Analysis of Retaining Walls on Stepped Footings, 1973
- Tachiri, Kaoru
see Watanabe, Kohei, 1781
- Taciroglu, Ertugrul
A Robust Macroelement Model for Soil — Pile Interaction under Cyclic Loads, 898
- Tadepalli, Naveen
see Durango-Cohen, Pablo L., 1669
- Taerwe, L.
see Matthys, S., 1450
- Tafari, Anthony N., ed.
see Field, Richard, ed., 2052
- Taghavi, Shahram
see Miranda, Eduardo, 6
- Taguchi, Koichi
see Azam, Mir Hamdadul, 1891
see Elshorbagy, Walid, 1859
- Tai, C. S.
Combined Removal of Carbon and Nitrogen in an Integrated UASB-Jet Loop Reactor Bioreactor System, 669
- Tai, Cheng-Feng
see Singh, Rajkeshar, 84
- Tajima, Yoshimitsu
Modeling Near-Shore Waves, Surface Rollers, and Undertow Velocity Profiles, 1896
- Takahashi, Naoki
Online Earthquake Response Test for Stratified Layers of Clay and Sand, 834
- Takeuchi, Ichiro
see Inoue, Kazuo, 1525
- Takewaki, Izuru
Probabilistic Critical Excitation Method for Earthquake Energy Input Rate, 538
- Täljsten, Björn
see Nordin, Håkan, 194
- Talley, Jeffrey W.
see Pirnie, Erica F., 662
- Talley, Jeffrey W., P.E.
see Ruggaber, Timothy P., 1947
- Talwani, Pradeep
see Leon, Evangelia, 811
- Tam, C. M.
see Zhang, Hong, 259
see Zhang, Hong, 314
see Zhang, Hong, 413
- Tamura, Keiichi
see Okamura, Mitsuo, 803
- Tan, K. H.
Size Effect on Shear Strength of Deep Beams: Investigating with Strut-and-Tie Model, 1507
- Tan, Kiang Hwee
Long-Term Deflections of Reinforced Concrete Beams Externally Bonded with FRP System, 236
- Tan, Soon-Keat
see Yu, Guoliang, 1183
see Yu, Guoliang, 1220
- Tan, V. B. C.
see Zhang, Y. Y., 534
- Tan, Z.
see Seracino, R., 1460
- Tan, Zhenyu
see Zhou, Guoqing, 1782
- Tanaka, Hitoshi
see Sana, Ahmad, 1040
- Tandoi, Valter
see Louarn, Essyllt, 705
- Tandon, Vivek
Impact of Specimen Geometry on Dynamic Modulus Measurement Test Setup, 1314
- Tandukar, Madan
Potential of a Combination of UASB and DHS Reactor as a Novel Sewage Treatment System for Developing Countries: Long-Term Evaluation, 601
- Tang, C. M.
Entropy Application to Improve Construction Finance Decisions, 397
- Tang, Hongxiao
see Wang, Dongsheng, 647
- Tang, Man-Chung, P.E.
Extending the Possibilities, 2034
Sun, Moon, and Stars, 2006
- Tang, Margaret
see Ettouney, Mohammed, P.E., 1406
- Tang, W. H.
see Zhang, L. M., 835
- Tang, Wenzhe
Partnering Mechanism in Construction: An Empirical Study on the Chinese Construction Industry, 310
- Tang, Xiaonan
Sediment Transport in River Models with Overbank Flows, 939

AUTHOR INDEX

Therriault

- Tanovic, R.
see Wight, R. G., 151
- Tape, William D.
see da Silva, Ana Maria Ferreira, 1031
- Tapia, Josefina
see Pacheco, Sadott, 621
- Tariku, Fitsum
see Mukhopadhyaya, Phalguni, 101
- Tas, Didem Okutman
see Cokgor, Emine Ubay, 590
- Tastani, S. P.
 Bond of GFRP Bars in Concrete: Experimental Study and Analytical Interpretation, 227
 Limitations of FRP Jacking in Confining Old-Type Reinforced Concrete Members in Axial Compression, 190
- Tate, Eric
see Scawthorn, Charles, 1928
see Scawthorn, Charles, 1929
- Tate, Jennifer N.
 Refinement Indicator for Mesh Adaption in Shallow-Water Modeling, 1015
- Tateishi, Yoshitaka
see Hong, Zhenshun, 833
- Tatum, C. B.
 Innovations in Earthmoving Equipment: New Forms and Their Evolution, 386
- Tatum, C. B., P.E.
 Systems Analysis of Technical Advancement in Earthmoving Equipment, 385
see Korman, Thomas M., P.E., 249
- Tawfiq, Kamal
see Abichou, Tarek, 919
see Haroon, Saif, 159
- Taxon, Tom
see Janke, Robert, 1834
- Tay, Joo-Hwa
see Show, Kuan-Yeow, 1267
- Tayfun, M. Aziz
 Distributions of Wave Steepness and Surf Parameter, 1855
- Tayfur, Gokmen
 ANN and Fuzzy Logic Models for Simulating Event-Based Rainfall-Runoff, 1064
- Taylor, Craig
 Hedgehog and Fox Strategies for Reducing Risks in Infrastructure Systems, 1935
- Taylor, Scott, P.E.
 Start at the Source, 2001
- Tchiftchibachian, A.
see Pascal, M., 1168
- Tee, K. F.
see Koh, C. G., 1638
- Teel, Amy L.
see Watts, Richard J., 1939
- Teh, T. C.
 Stability of Submarine Pipelines on Liquefied Seabeds, 1878
see Damgaard, J. S., 1883
see de Groot, M. B., 1877
- Teixeira, E. C.
see Khan, Liaquat A., 1005
- Tejero, I.
see Jácome, A., 727
- Telem, Dory
 Moving a Reinforced-Concrete Building: Case Study, 299
 Only Dynamics Can Absorb Dynamics, 403
- Templeton, J. S., ed.
 Offshore Technology in Civil Engineering: Hall of Fame Papers from the Early Years, 2077
- Teng, J. G.
 Behavior and Modeling of Fiber Reinforced Polymer-Confining Concrete, 9
 Debonding Failures of RC Beams Strengthened with Near Surface Mounted CFRP Strips, 198
see Yu, T., 233
- Teng, Junn-Yuan
 Multiobjective Strategic Evaluation for Urban Development in Kaohsiung, Taiwan: Case Study, 1791
- Terasawa, Tomohiko
see Azam, Mir Hammadul, 1891
- Terro, M.
see Almutairi, Naif B., 500
- Terry, Philip, P.E.
 Security Barrier Design, 1981
- Terzi, Özlem
see Keskin, M. Erol, 1077
- Teskey, W. F.
 Determining Free Flight Performance by Surveying Engineering Techniques, 1653
- Teskey, W. J.
see Teskey, W. F., 1653
- Teughels, Anne
see Unger, Jörg F., 1606
- Thakkar, Bhairav K.
 Damage-Coupled Progressive Failure and Yield Line Analyses of Metal Plates, 483
- Tham, L. G.
see Pradhan, B., 36
see Yang, J., 779
- Thang, Le Chien
see Ogunlana, Stephen, 1247
- Thanh-Quach, Tung
see Morse, Brian, 184
see Morse, Brian, 185
- Thepchatri, Thaksin
see Lenwari, Akhrawat, 195
- Therriault, Brian M.
see Ergas, Sarina J., 618

- Thet, Y.**
 see Abuel-Naga, H. M., 862
- Thévenin-Foray, Geneviève**
 see Poyet, Stéphane, 1328
- Thiessen, Kenton**
 see Hay, Shaun, 237
- Tholen, Michael, P.E.**
 see Terry, Philip, P.E., 1981
- Thom, Nicholas H.**
 see Krutcheva, Mariana R., 1312
- Thomas, Fridtjof**
 see Onar, Arzu, 1748
- Thomas, H. Randolph**
 Fundamental Principles for Avoiding Congested Work Areas — A Case Study, 1989
 Fundamental Principles of Workforce Management, 297
- Thomas, Stephen R.**
 see Matthews, Benjamin, 1259
- Thomas, W. H.**
 Empirical Punching Shear Failure Theory for Oriented Strand Boards: Preliminary Study, 1487
- Thomas, Will**
 see Scawthorn, Charles, 1928
 see Scawthorn, Charles, 1929
- Thompson, David B.**
 see Cleveland, Theodore G., 1218
- Thompson, Marshall R., P.E.**
 see Gopalakrishnan, Kasthurirangan, 1761
- Thompson, Michel D.**
 Reliability-Based Optimization of Fiber-Reinforced Polymer Composite Bridge Deck Panels, 1626
- Thompson, Robert W.**
 see Pyzocha, Michael J., 703
- Thompson, T. L.**
 see Lazarovitch, N., 1225
- Thomson, P. R.**
 see Wong, R. C. K., 904
- Thornton, E. C.**
 Development of a Field Design for In Situ Gaseous Treatment of Sediment Based on Laboratory Column Test Data, 769
- Thu, Trinh Minh**
 Shear Strength and Pore-Water Pressure Characteristics during Constant Water Content Triaxial Tests, 815
- Thuman, Andrew J., P.E.**
 Jackson River Modeling: 50-Year Perspective, 719
- Thurston, Hale W.**
 Opportunity Costs of Residential Best Management Practices for Stormwater Runoff Control, 1810
- Tia, M.**
 see Kumara, M. W., 1749
- Tian, Xiaodong**
 Marine Wastewater Discharges from Multiport Diffusers. IV: Stratified Flowing Water, 972
- Tian, Zong Z.**
 Probabilistic Model for Signalized Intersection Capacity with a Short Right-Turn Lane, 1685
- Tiberio, Terrence J., P.E.**
 Placed in Context, 2026
- Tieleman, Henry W.**
 Peak Wind Load Comparison: Theoretical Estimates and ASCE 7, 1551
- Tien, Yong-Ming**
 see Chen, Liang-Chien, 1651
- Tierney, M. J.**
 Removal of Toluene Vapor with Dispersed Activated Carbon, 622
- Tikalsky, Paul, P.E.**
 see Deng, An, 665
- Tikka, Timo K.**
 Nonlinear *EI* Equation for Slender Composite Columns Bending about the Minor Axis, 1596
 Nonlinear Equation for Flexural Stiffness of Slender Composite Columns in Major Axis Bending, 1477
- Tiller, Dale K.**
 see Bunz, Kimberly R., 88
- Tilley, Chris**
 see Cai, Hubo, 1646
- Timmermans, Harry**
 see Zhu, Wei, 1792
- Ting, Wen-Huei**
 Enhancement of Denitrification in Upflow Sludge Bed Reactors with Sludge Wasting, 635
- Ting, W.-P.**
 see Lu, M.-C., 1965
- Tingle, Jeb S., P.E.**
 see Rushing, John F., 1394
- Tingsanchai, Tawatchai**
 Stochastic Dynamic Programming with Risk Consideration for Transbasin Diversion System, 1812
- Tiong, Robert L. K.**
 see Singh, D., 387
- Tjhin, T.**
 Observations on the Reliability of Alternative Multiple-Mode Pushover Analysis Methods, 1485
- Tlemat, H.**
 see Neocleous, K., 1339
- Toback, A.**
 see Serrette, R., 1497
- Tobiason, John E.**
 see Kennedy, Matthew G., 710
- Tobita, Tetsuo**
 Rotation Response of a Rigid Body under Seismic Excitation, 472
- Todisco, Francesco**
 see Mannonchi, Francesco, 1179
- Tokay, T. E.**
 Validation of a Large-Eddy Simulation Model to Simulate Flow in Pump Intakes of Realistic Geometry, 1062

AUTHOR INDEX

Tuncay

- Tokimatsu, Kohji
see Cetin, K. Onder, 10
- Tonon, Fulvio
Interaction Diagram and Load Effects for Vertical Pile Groups with Application to the AASHTO LRFD, 1484
see Mammino, Armando, 105
- Tonon, Luigi
see Mammino, Armando, 105
- Torrent, David Grau
see Caldas, Carlos H., 361
- Torrenti, Jean-Michel
see Poyet, Stéphane, 1328
- Torres, Helen
see Post, Carol, P.E., 2021
- Torres, Ronald
see Perera, Ricardo, 1586
- Toukourou, A.
see Ng, H. S., 1142
- Touran, Ali
Modeling Cost Escalation in Large Infrastructure Projects, 373
- Tournier-Cognon, Hélène
see Poyet, Stéphane, 1328
- Toutanji, H.
see Mathys, S., 1450
see Noumowé, A., 1349
- Toutanji, Houssam
Cyclic Behavior of RC Beams Strengthened with Carbon Fiber Sheets Bonded by Inorganic Matrix, 1264
- Toutanji, Houssam, P.E.
Verifications of Design Equations of Beams Externally Strengthened with FRP Composites, 213
- Toutanji, Houssam A., P.E.
Moondust and More, 2010
- Toutlemonde, François
see Multon, Stéphane, 1317
- Towhata, Ikuo
see Shimizu, Yoshihisa, 801
- Townsend, Tim
see McLean, Amanda, 1945
- Townsend, Timothy G., P.E.
see Jain, Pradeep, 671
- Tralli, Antonio
see Milani, Gabriele, 1602
- Trauth, Kathleen M.
see Wang, Hao, 1783
- Traviglia, Andrera M.
Considering Location, Compliance, and Storage in Decisions on Brackish Water Resource Development, 1853
- Trejo, David
see Reinschmidt, Kenneth, 363
- Tremblay, Armand, P.E., ed.
see Atalah, Alan, P.E., ed., 2080
- Tremblay, Robert
Collapse during Construction of a Precast Girder Bridge, 1375
- Tricaud, Etienne
Above it All, 2042
- Trikha, D. N.
see Pandey, A. K., 1576
- Tripp, G. A.
see Richardson, C. P., 592
- Trivedi, M.
see Hong, H. P., 1155
- Truelsen, Christoffer
see Sumer, B. Mutlu, 1880
- Tsai, C. C.
Method of Fundamental Solutions for Three-Dimensional Stokes Flow in Exterior Field, 467
- Tsai, W. Y.
see Chang, C. C., 1661
- Tsai, Yuan-Fan
Three-Dimensional Topography of Debris-Flow Fan, 962
- Tsai, Yung-Pin
Effect of Cd(II) on Different Bacterial Species Present in a Single Sludge Activated Sludge Process for Carbon and Nutrient Removal, 602
- Tsamboulas, Dimitrios A.
Assessing Performance under Regulatory Evolution: A European Transit System Perspective, 1798
- Tsang, Daniel C. W.
Influence of Pore-Water Velocity on Transport Behavior of Cadmium: Equilibrium versus Nonequilibrium, 1958
- Tschantz, Bruce, P.E.
see Hedrick, Kevin P., 1129
- Tse, C. M.
Deflection of the Vertical Components from GPS and Precise Leveling Measurements in Hong Kong, 1654
- Tseng, Chih-Ming
Formation Processes and Configuration of Channel-Flow Dominated Alluvial Deltas by Numerical Simulation, 1012
- Tserng, H. P.
see Fan, Su-Ling, 291
- Tsiatas, G.
see Bradshaw, A. S., 1895
- Tsige, Meaza
see Arroyo, Marcos, 1290
- Tsukayama, Seikoh
see Nakaza, Eizo, 1858
- Tufekci, E.
Exact Solution of Out-of-Plane Problems of an Arch with Varying Curvature and Cross Section, 494
- Tummala, Archana
see Bolton, James, 745
- Tuncay, Kagan
see Durmusoglu, Ertan, 39

- Tung, Karen C. F.**
see Lo, Tommy Y., 352
- Tung, W. K.**
see Leung, Christopher K. Y., 484
see Leung, Christopher K. Y., 485
- Turcry, Philippe**
 Cracking Tendency of Self-Compacting Concrete Subjected to Restrained Shrinkage: Experimental Study and Modeling, 1266
- Turk, Goran**
see Savšek-Safić, Simona, 1648
- Turner, Ian L.**
 Discriminating Modes of Shoreline Response to Offshore-Detached Structures, 1873
- Turochy, Rod E.**
 Determining the Content of the First Course in Transportation Engineering, 1423
 Enhancing Short-Term Traffic Forecasting with Traffic Condition Information, 1712
- Tutumluer, Erol, ed.**
see Huang, Baoshan, ed., 2079
see Pan, Tongyan, 1726
- Tutuncu, Ilker**
 Compression Behavior of Non slender Cylindrical Steel Members with Small and Large-Scale Geometric Imperfections, 1560
- Twisdale, Lawrence A., Jr.**
see Vickery, Peter J., 1930
see Vickery, Peter J., 1931
- Tyagi, R. D.**
see Brar, Satinder K., 1946
see Verma, M., 1969
- Tyler, Scott W.**
see Albright, William H., 906
- Tzamali, Eleftheria**
 Improved Design for Vision-Based Incident Detection in Transportation Systems using Real-Time View Transformations, 1755
- Tzeng, Chi-Shiang**
see Wang, Cheng-Der, 12
- Tzeng, Duen-Bin**
see Lin, Shiou-Gwo, 1647
- U, José Terán**
 Remarkable Rotation, 1994
- Uang, C. M.**
see Chou, C. C., 118
- Uang, Chia-Ming**
see Richards, Paul W., 1554
see Richards, Paul W., 1555
- Uber, James**
see Janke, Robert, 1834
see Murray, Regan, 1831
- Uber, James G.**
see Berry, Jonathan, 1823
- Uddin, Waheed**
see Boriboonsomsin, Kanok, 1753
- Udoeyo, Felix F.**
 Potential of Wood Waste Ash as an Additive in Concrete, 1330
- Udwadia, Firdaus E.**
see Phohomsiri, Phailaung, 503
- Uemura, Shigeki**
see Tandukar, Madan, 601
- Ulery, A.**
see McShannon, J., 1424
- Ulmer, Jared M.**
see Miller, John S., P.E., 1674
- Umamahesh, N. V.**
see Prasad, A. Srinivasa, 1189
- Umeda, Makoto**
 Observation and Simulation of Floodwater Intrusion and Sedimentation in the Shichikashuku Reservoir, 1020
- Umeyama, Motohiko**
 Transformation, Attenuation, Setup, and Undertow of Internal Waves on a Gentle Slope, 1901
- Ung, Francis**
see Huo, X. Sharon, 1992
- Unger, Jens**
 Riprap Failure at Circular Bridge Piers, 966
- Unger, Jörg F.**
 System Identification and Damage Detection of a Prestressed Concrete Beam, 1606
- Urala, Viswanath**
see Green, Perry S., 1493
- Urano, Kohei**
see Himeno, Shuji, .nagaokaut.ac.jp, 616
- Urban Drainage Standards Committee of the Standards Development Council of the Environmental and Water Resources Institute of ASCE**
 Standard Guidelines for the Design of Urban Stormwater Systems ASCE/EWRI 45-05; Standard Guidelines for Installation of Urban Stormwater Systems ASCE/EWRI 46-05; Standard Guidelines for the Operation and Maintenance of Urban Stormwater Systems ASCE/EWRI 47-05, 2089
- Urban Drainage Standards Committee of the Standards Development Council of the Environmental and Water Resources Institute of ASCE**
 Standard Guidelines for the Design of Urban Subsurface Drainage (ASCE/EWRI 12-05); Standard Guidelines for the Installation of Urban Subsurface Drainage (ASCE/EWRI 13-05); and Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage (ASCE/EWRI 14-05), 2090
- Usami, Tsutomu**
see Chen, Zhiyi, 1486
- Usmen, Mumtaz A., P.E.**
see Baradan, Selim, 342
- Ustun, Aydin**
 Long-Range Geoid Testing by GPS-Leveling Data in Turkey, 1643
- Uwakweh, Benjamin Obinero**
 Motivational Climate of Construction Apprentices, 341

AUTHOR INDEX

Vasileva

- Uy, Brian
see Chen, Ju, 1631
see Pi, Yong-Lin, 1515
see Pi, Yong-Lin, 1516
- Uyumaz, Ali
Fuzzy Logic Model for Equilibrium Scour Downstream
of a Dam's Vertical Gate, 1038
- Uzarski, Donald R., ed.
see Wang, Kelvin C. P., ed., 2049
- Vaicaitis, Rimas
see Dogan, Vedat, 63
- Vairavamoorthy, K.
see Gorantiwar, Sunil D., 1201
see Smout, Ian K., 1202
see Yan, J. M., 752
- Val, Dimitri V.
see Segal, Fred, 529
- Valavala, Srinivas
Area-Rated Rational Coefficients for Portland Cement
Pervious Concrete Pavement, 1098
- Valdeas, Juan B.
see Kim, Tae-Woong, 1084
- Valdes, Julio R.
Stress-Controlled Filtration with Compressible Particles, 858
- Valencia, Félix
see Pacheco, Sadott, 621
- Valiani, Alessandro
Divergence Form for Bed Slope Source Term in Shallow Water Equations, 997
- Valiente, A.
Symmetric Catenary of a Uniform Elastic Cable of
Neo-Hookean Material, 509
- Vallejo, Luis E.
Degradation of a Granular Base under a Flexible Pavement: DEM Simulation, 56
see Lobo-Guerrero, Sebastian, 32
see Lobo-Guerrero, Sebastian, 850
- Vallero, D. A.
Preventing Disputes with Empathy, 1430
- van Ballegooy, Rick
see Melville, Bruce, 964
- van Ballegooy, Sjoerd
see Melville, Bruce, 956
see Melville, Bruce, 964
see Melville, Bruce, 988
- Van Blaricum
see Dawsey, Wesley J., 1825
- van Bloemen Waanders, Bart G.
see Laird, Carl D., 1826
- van de Lindt, John W.
Damage and Damage Prediction for Wood Shearwalls
Subjected to Simulated Earthquake Loads, 1381
- Van Dessel, Steven
see Khire, Ritesh A., 1603
- Van Dusen, Michael
see Sharaf, Mohamed H., 230
- van Gelder, Boudewijn H. W.
see Han, Jen-Yu, 1660
- van Lint, J. W. C.
Reliable Real-Time Framework for Short-Term Freeway Travel Time Prediction, 1765
- van Loosdrecht, Mark C. M.
see de Kreuk, Merle K., 677
see Wilsenach, Jac A., 620
- Van Marcke, Erik
see Taylor, Craig, 1935
- van Noortwijk, Jan M.
see Korving, Hans, 1039
- van Reenen, David
see Mukhopadhyaya, Phalguni, 101
- van Zyl, Jakobus E.
Explicit Integration Method for Extended-Period Simulation of Water Distribution Systems, 969
- Vanajakshi, Lelitha
System-Wide Data Quality Control of Inductance Loop Data using Nonlinear Optimization, 263
- Vanapalli, Sai K.
see Punthutachcha, Koonnamas, 1292
- Vanapalli, Sai K., P.E.
see Puppala, Anand J., P.E., 846
- Vanegas, Jorge
see Jeon, Christy Mihyeon, 1793
- Vangpaisal, Thaveesak
see Bouazza, Abdelmalek, 871
- Vanhoucke, Mario
Work Continuity Constraints in Project Scheduling, 289
- Vaníček, Petr
see Berber, Mustafa, 1664
see Koohzare, Azadeh, 1663
- Vanoni, Vito A., ed.
Sedimentation Engineering, 2084
- Varadarajan, A.
Constitutive Model for Rockfill Materials and Determination of Material Constants, 35
- Vardy, Alan
see Shimada, Masashi, 961
- Varghese, Koshy
see Maheswari, J. Uma, 336
- Varoglu, Erol
Midply Wood Shear Wall System: Concept and Performance in Static and Cyclic Testing, 1578
- Varyani, Kamlesh S.
see Pham, Xuan P., 1860
- Vasconcelos, Jose G.
Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach, 987
- Vasileva, Irina V.
see Dempsey, Kevin M., 182

- Vázquez-Cendón, M. E.**
see Pérez, G., 977
- Veach, Coy M., P.E.**
 There's No Such Thing as Engineering Ethics, 1913
- Vecchio, F. J.**
see Zhou, C. E., 581
- Vecchio, Frank J.**
see Montoya, Esneyder, 1318
- Venkataramana, G.**
see McShannon, J., 1424
- Venosa, Albert D.**
see Boufadel, Michel C., 668
see Kaku, Vikram J., 593
see Wrenn, Brian A., 591
- Ventura, Francesca**
 Estimating Evaporation from Bare Soil using Soil Moisture Data, 1181
- Venugopal, K.**
see Jain, M. K., 1136
- Verma, Ashish**
 Developing Integrated Schedules for Urban Rail and Feeder Bus Operation, 1788
- Verma, M.**
 Aerobic Biofiltration Processes — Advances in Wastewater Treatment, 1969
see Brar, Satinder K., 1946
- Vesga, Luis F.**
see Lobo-Guerrero, Sebastian, 32
- Vesilind, P. A.**
see Vallero, D. A., 1430
- Vickery, Peter J.**
 HAZUS-MH Hurricane Model Methodology. I: Hurricane Hazard, Terrain, and Wind Load Modeling, 1930
 HAZUS-MH Hurricane Model Methodology. II: Damage and Loss Estimation, 1931
- Vidal, P.**
 Influence of Hopper Eccentricity on Discharge of Cylindrical Mass Flow Silos with Rigid Walls, 542
- Vidic, Radisav D.**
see Feng, Wenguo, 615
- Viessman, Warren, Jr., ed.**
 State Water Resources Planning in the United States, 2091
- Vigh, Attila**
 Approximate Analysis of Bridges for the Routing and Permitting Procedures of Overweight Vehicles, 132
- Vijayaraghavan, Krishna**
 Radioactive Waste Foams: Formation and Mitigation, 680
- Viklander, Maria**
see Reinosdotter, Karin, 612
- Vilalal, Sirapong**
see Gabriel, Steven A., 652
- Vincent, John F., P.E.**
 Evaluation of Distress in Supports of Hyperbolic Paraboloid Shell, 1364
- Vindiganavile, V.**
 Size Effects and the Dynamic Response of Plain Concrete, 1315
- Vipulanandan, C.**
see Kim, Jeewoong, 687
- Viraraghavan, Thiruvengatachari**
see Mihail, Darrell J., 1951
see Mysore, Deepa, 1957
see Ramakrishna, Devikarani M., 1962
see Singh, Kripa Shankar, 699
- Virgin, Lawrence N.**
see Plaut, Raymond H., 527
- Vishal, R.**
see Kumar, Paveen, 1326
- Viswanath, G. K.**
see Prasad, A. Srinivasa, 1189
- Vítkovský, John**
 Numerical Error in Weighting Function-Based Unsteady Friction Models for Pipe Transients, 1001
- Vítkovský, John P.**
 Systematic Evaluation of One-Dimensional Unsteady Friction Models in Simple Pipelines, 1000
- Vittal, Sameer**
see Hajela, Prabhat, 77
- Vo, Diep**
see Ramamurthy, A. S., 1212
see Ramamurthy, A. S., 1219
- Vo, K. K.**
see Wang, C. M., 1463
- Vogel, Richard M.**
see Douglas, Ellen M., 1120
- Vogel, Thomas**
see Zwicky, Daia, 1508
- Voice, Thomas C.**
see Gellner, W. James, II, 773
- Volpe, Richard L., P.E.**
see Hook, David E., P.E., 2032
- von Bremen, Hubertus F.**
see Phohomsiri, Phailaung, 503
- Vondrak, Jiri**
 Use of Fresnel Enantiomorphic Diffraction in Surveying Laser Methods, 1650
- Voon, K. C.**
 Experimental In-Plane Shear Strength Investigation of Reinforced Concrete Masonry Walls, 1478
- Vorster, Michael**
see Tatum, C. B., 386
see Tatum, C. B., P.E., 385
- Vorster, Michael C.**
see Lucko, Gunnar, 359
- Voyiadjis, George Z.**
see Alsaleh, Mustafa I., 37

AUTHOR INDEX

- Vucetic, Miladen
see Hsu, Chu-Chung, 900
- Vun, P. L.
see Dunn, S. L., 1881
- Waara, F.
 Price and Nonprice Criteria for Contractor Selection, 367
- Wadda, Moe M.
see Skolicki, Zbigniew, 1822
- Wadud, Zia
 Design Charts for Helicoidal Stair Slabs with Landing at Midspan, 1470
- Wahlin, Brian T.
 Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Theory, 1186
 Automatic Downstream Water-Level Feedback Control of Branching Canal Networks: Simulation Results, 1187
see Clemmens, Albert J., 1121
- Walder, Joseph S.
 Case Study: Mapping Tsunami Hazards Associated with Debris Flow into a Reservoir, 931
- Waldron, Peter
see Guadagnini, Maurizio, 235
- Walker, Aaron K.
see Li, Yadong, P.E., 638
- Walker, Andrew R.
see Ledbetter, Stephen R., 98
- Walker, Harold W.
see Bob, Mustafa, 600
- Walker, Polly A.
 Impact of Politics on the Colorado River Basin Water Agreement: In-Depth Administrative Analysis, 1911
- Walker, Rohan
 Vertical Drain Consolidation with Parabolic Distribution of Permeability in Smear Zone, 866
- Walk-Laufer, B.
see Schleier, M., 1338
- Wallace, John W.
see Taciroglu, Ertugrul, 898
- Wallace, William A.
see Mendonça, David, 1163
- Wallis, Steve
see Cao, Zhixian, 1059
- Walters, Godfrey A.
see van Zyl, Jakobus E., 969
- Walters, Matthew C.
 Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids, 435
- Walters, R.
see Aberle, J., 990
- Walters, Russell
see Elmisalami, Tarek, 414
- Walters, Russell C.
see Gao, Zhili, 405

Wang

- Walton, John C., P.E.
see Rice, Robert W., P.E., 737
- Wan, Yongshan
 Optimization of Frequency Distribution of Storm-Water Discharges for Coastal Ecosystem Restoration, 1835
- Wang, Bo
see Teng, J. G., 198
- Wang, C. H.
see Liu, Rong, 60
- Wang, C. M.
 Membrane Analysis and Minimum Weight Design of Submerged Spherical Domes, 1463
see Phungpaingam, B., 436
see Zhang, Y. Y., 534
- Wang, Cheng
see Zhang, Yin, 144
- Wang, Cheng-Bo
see Hou, Chao-Sheng, 555
- Wang, Cheng-Der
 Automatically Computing the Displacements and Stresses Induced by Three-Dimensional Arbitrarily Shaped Loads in a Transversely Isotropic Medium, 18
 Displacements and Stresses Due to a Uniform Vertical Circular Load in an Inhomogeneous Cross-Anisotropic Half-Space, 12
- Wang, Chi-hsiang
 Seismic Reliability of Low-Rise Nonsymmetric Wood-frame Buildings, 1513
- Wang, Chih-Yin
see Jou, Yow-Jen, 1794
- Wang, De
see Zhu, Wei, 1792
- Wang, Dian-Hai
 Entropy Models of Trip Distribution, 1774
- Wang, Dingbao
see Cai, Ximing, 1844
- Wang, Dongsheng
 Quantitative Model of Coagulation with Inorganic Polymer Flocculant PACI: Application of the PCNM, 647
- Wang, H. L.
see Shang, J. Q., P.E., 1277
- Wang, Hao
 Urban Origins/Destinations from High-Resolution Remote Sensing Images, 1783
- Wang, Jialai
 Fracture Analysis of Shear Deformable Bi-Material Interface, 466
- Wang, Jian
 Hybrid Data Mining/Genetic Shredding Algorithm for Reliability Assessment of Structural Systems, 1582
- Wang, Jian-Hua
 Correlation between Cyclic Resistance Ratios of Intact and Reconstituted Offshore Saturated Sands and Silts with the Same Shear Wave Velocity, 924

Wang, Judith

see Gasparini, D. A., 1374

Wang, Judith C.

Influence of Temperature and Pressure on the Dynamic Properties of Rubber-Modified Asphalt Concrete, 1275

Wang, Kejin

Evaluation of Pavement Curing Effectiveness and Curing Effects on Concrete Properties, 1302

Wang, Kelvin C. P., ed.

Applications of Advanced Technology in Transportation, 2049

Wang, Kun

Disaster Recovery System Model with E-Government Case Study, 1937

Wang, L. B.

see Wang, X., 21

Wang, Lei

see Jia, Shaofeng, 1819

Wang, M. K.

see Lai, C. H., 1942

Wang, Ping

Surface Analysis of Chesapeake Bay Water Quality Response to Different Nutrient and Sediment Loads, 625

see Chao, Keh-Ping, 657

Wang, Qian

Alternative Formulations for Structural Optimization: An Evaluation Using Frames, 1624

see Chan, Chun-Man, 1536

Wang, Qing-Gai

Method for Measurement of Canopy Interception under Sprinkler Irrigation, 1185

Wang, Sam S. Y.

see Chao, Xiaobo, 753

see Ding, Yan, 1055

see Ding, Yan, 1900

see Nguyen, Dan K., 958

see Wu, Weiming, 1016

Wang, Shuqing

see Hu, Sau-Lon James, 477

Wang, Tao

Creep Buckling of Shallow Parabolic Concrete Arches, 1601

see de Neufville, Richard, 1147

Wang, Weijun

see Sun, Lu, 505

Wang, X.

Continuous Interface Elements Subject to Large Shear Deformations, 21

Wang, Xiangyu

Potential of Augmented Reality as an Assistant Viewer for Computer-Aided Drawing, 280

Wang, Xingzhe

Dynamic Stability of Ferromagnetic Beam-Plates with Magnetoelastic Interaction and Magnetic Damping in Transverse Magnetic Fields, 476

Wang, Y. H.

Laboratory Studies of Two Common Saprolitic Soils in Hong Kong, 864

Wang, Yongsheng

see De Silva, Dakshina G., 1924

Wang, Yu-Ren

see Gibson, G. Edward, Jr., 1241

Wani, Altaf H.

Biologically Mediated Reductive Transformation of Ordinance-Related Compounds by Mixed Aquifer Culture using Acetate as the Sole Carbon Source: Laboratory Treatability Studies for Field Demonstration, 1948

Wanitkorkul, Assawin

see Filiatrault, André, 1987

Ward, Frank A.

Integrated Economic, Hydrologic, and Institutional Analysis of Policy Responses to Mitigate Drought Impacts in Rio Grande Basin, 1851

Wareham, D. G.

Solidification of New Zealand Harbor Sediments using Cementitious Materials, 1294

Warn, Gordon P.

Property Modification Factors for Seismically Isolated Bridges, 140

Warnemuende, Kraig

see Mu, Bin, 196

see Wu, Hwai-Chung, 147

Warren, Christopher L., P.E.

Turbocharged Organizational Change through High-Octane Management Training, 1916

Warren, K. A.

Field Study to Investigate WIDE Technology for TCE Extraction, 880

Warrick, A. W.

see Furman, A., 1230

see Lazarovitch, N., 1225

Wartman, Joseph

Geotechnical Physical Modeling for Education: Learning Theory Approach, 1431

Performance and Analyses of Mechanically Stabilized Earth Walls in the Tecoman, Mexico Earthquake, 1395

see Grubb, Dennis G., 830

see Grubb, Dennis G., 831

see Porbaha, Ali, ed., 2072

Warwick, John J.

see Kish, Suzanne M., 739

Wasan, Darsh

see Vijayaraghavan, Krishna, 680

Washington, Simon

see Kim, Do-Gyeong, 1692

Wasserman, Edward P.

see Huo, X. Sharon, 1992

Waszczyszyn, Zenon

see Kuźniar, Krystyna, 279

AUTHOR INDEX

Williams

- Watanabe, Kohei
Route Selection for a New Transportation System in
Hillside Urban Areas: A Case Study in Nagasaki,
Japan, 1781
- Watkins, D. W., Jr.
see Kracman, D. R., 1807
- Watkins, David W., Jr.
Economic-Based Optimization of Panama Canal Sys-
tem Operations, 1852
- Watson, Jean-Paul
see Berry, Jonathan, 1823
- Wattanadechachan, Prapun
Thermal Compatibility and Durability of Wearing Sur-
faces on GFRP Bridge Decks, 149
- Watts, Philip
see Walder, Joseph S., 931
- Watts, Richard J.
Treatment of Contaminated Soils and Groundwater
using ISCO, 1939
- Waythomas, Christopher F.
see Walder, Joseph S., 931
- Weathersby, Anne
see Medina, Victor F., P.E., 1950
- Weber, Matthew A.
Value of Instream Recreation in the Sonoran Desert,
1806
- Wedin, D. A.
see Sridhar, V., 1216
- Wei, Xiaosheng
Early Hydration Process of Portland Cement Paste by
Electrical Measurement, 1272
- Wei, Yong
Well-Balanced Finite-Volume Model for Long-Wave
Runup, 1866
- Weiss, Jason
see Puri, Sunil, 1296
- Weiss, Jeffrey D.
Storm Water Detention Ponds: Modeling Heavy Metal
Removal by Plant Species and Sediments, 717
- Weiss, W. Jason
see Yang, Zhifu, 1307
- Wekezer, Jerry
see Kwasniewski, Leslaw, 1391
- Weldon, Brad D.
see Kurama, Yahya C., 1538
see Shen, Qiang, 1539
- Wen, Sihai
Effects of Strain and Damage on Strain-Sensing Ability
of Carbon Fiber Cement, 1299
- Wen, Y. K.
see Liu, Min, 1444
- Weng, Chih-Huang
Laboratory-Scale Evaluation of Cr(VI) Removal from
Clay by Electrokinetics Incorporated with Fe(O)
Barrier, 1959
- Werth, Charles J.
see Brennan, Rachel A., 673
- Westerhoff, Paul K.
see Drewes, Jörg E., 748
- Westrick, Judy
see Xagorarakis, Irene, 692
- Wey, Ming-Yen
see Lin, Chiou-Liang, 708
- Wheaton, K. P.
see Naito, C. J., 1982
- White, Dan
see Myerchin, Greta, 188
- White, David C.
see Nedović-Budić, Zorica, 1795
- White, David J.
Reclaimed Hydrated Fly Ash as a Geomaterial, 1283
see Han, Jie, P.E., ed., 2045
see Handy, R. L., 782
see Handy, R. L., 783
see Suleiman, Muhannad T., 51
see Suleiman, Muhannad T., 1611
- White, Joshua
see Barelli, Michael, 127
- Whiteaker, Timothy L.
From a NEXRAD Rainfall Map to a Flood Inundation
Map, 1074
- Whitman, Robert V.
see Kircher, Charles A., 1927
- Whittaker, Andrew S.
see Escobar-Sandoval, Edgard D., 1614
see Sezen, Halil, 1367
see Warn, Gordon P., 140
- Wibowo, Andreas
CAPM-Based Valuation of Financial Government Sup-
ports to Infeasible and Risky Private Infrastructure
Projects, 312
- Wicklein, Edward A.
see Khan, Liaqat A., 1005
- Wight, R. G.
Development of FRP Short-Span Deployable Bridge —
Experimental Results, 151
- Wilkinson, S. M.
Analysis and Solution to Human-Induced Lateral
Vibrations on a Historic Footbridge, 104
- Willett, David A.
Accuracy of Ground-Penetrating Radar for Pavement-
Layer Thickness Analysis, 1673
- Williams, R. Lynn
see Chen, Chi-Chung, 1836
- Williams, Sterling Greg
Modeling of Lake Ice Characteristics in North America
using Climate, Geography, and Lake Bathymetry,
187
- Williams, Todd O.
A Stochastic Transformation Field Theory for Hetero-
geneous Materials, 564

- Williamson, E. B.**
see Kaewkulchai, G., 1403
- Williamson, Eric B., P.E.**
see Ruth, Peter, 1401
- Willoughby, W. Douglas**
 Automated Access, 2036
- Wilsenach, Jac A.**
 Integration of Processes to Treat Wastewater and Source-Separated Urine, 620
- Wilson, G. V.**
see Fox, G. A., 1133
- Wilson, James H.**
see Beyene, Asfaw, 421
- Wilson, Scott A.**
see Schaad, David E., P.E., 738
- Wiltshire, Richard L., ed.**
 GEO-Volution: The Evolution of Colorado's Geological and Geotechnical Engineering Practice, 2070
- Winch, Graham M.**
 Critical Space Analysis, 335
- Winters, Danny**
see Mullins, Gray, 822
- Winters, Gerald K.**
see Willoughby, W. Douglas, 2036
- Wipf, Terry J.**
see Gao, Zhili, 405
- Wiraguna, S. I.**
see Amin, A. F. M. S., 440
- Wirgau, Scott**
 Internet-Enabled Remote Observation and Control of a Shake Table Experiment, 271
- Wittler, James M.**
 Calibration of Electromagnetic Induction for Regional Assessment of Soil Water Salinity in an Irrigated Valley, 1213
- Wöhling, Th.**
 Efficient Solution of the Coupled One-Dimensional Surface — Two-Dimensional Subsurface Flow during Furrow Irrigation Advance, 1206
- Wolshon, Brian, P.E.**
 Reversible Lane Systems: Synthesis of Practice, 1766
- Wong, Ching-Sze**
see Ng, Wing-Cheong, 1862
- Wong, Francis K. W.**
see Mostafa, Anirban, 1779
- Wong, G. Sam**
see Rollings, Raymond S., 1370
- Wong, Kevin K. F.**
see Zhao, Dianfeng, 535
- Wong, Lap-Chi**
see Lu, Ming, 408
- Wong, Louisa**
see Fang, Dongping, 345
- Wong, M. B.**
 Effect of Torsion on Limiting Temperature of Steel Structures in Fire, 1512
- Wong, Miguel**
 Reanalysis and Correction of Bed-Load Relation of Meyer-Peter and Müller using Their Own Database, 1049
- Wong, R. C. K.**
 In Situ Pore Pressure Responses of Native Peat and Soil under Train Load: A Case Study, 904
- Wong, S.C., ed.**
see Wang, Kelvin C. P., ed., 2049
- Wong, T. K.**
see Tsai, C. C., 467
- Wong, T. N.**
see Teng, J. G., 198
- Wong, Tommy S. W.**
 Kinematic Wave Parameters for Trapezoidal and Rectangular Channels, 1088
- Wong, Y. L.**
see Li, C. S., 1610
- see* Yu, T., 233
- Wongwises, Somchai**
see Chinnarasri, Chaiyuth, 1172
- Woo, Byung-Hun**
see Park, Hyo Seon, 1625
- Wood, Andrew W.**
see McGuire, Marketa, 1811
- Wood, James V.**
 Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses, 1500
- see* Dawe, John L., 1499
- Woodruff, Paul H., P.E.**
 Educating Engineers to Create a Sustainable Future, 631
- Woodward, C. B.**
see Barr, P. J., 1365
- Woolard, Craig**
see Myerchin, Greta, 188
- Woolhiser, David A.**
 Estimating Infiltration in the Upper Split Wash Watershed, Yucca Mountain, NV, 1083
- Work, David**
see Inyang, Hilary I., 1289
- Wozniak, Chenine**
see Cort, Todd L., 595
- Wren, D. G.**
see Kuhnle, R. A., 1066
- Wrenn, Brian A.**
 Effects of Nutrient Source and Supply on Crude Oil Biodegradation in Continuous-Flow Beach Microcosms, 591
- Wright, Kenneth, P.E.**
 Tipon: Water Engineering Masterpiece of the Inca Empire, 2093

AUTHOR INDEX

Xie

Wright, Leonard T.

Prioritizing Sanitary Sewers for Rehabilitation using Least-Cost Classifiers, 1154

Wright, Neal R., ed.

Application of GIS Technologies in Port Facilities and Operations Management, 2048

Wright, Steven J.

see Vasconcelos, Jose G., 987

Wu, B. J.

see Zheng, Y. H., 1865

Wu, Bi-Jun

Response Amplitude and Hydrodynamic Force for a Buoy over a Convex, 1864

Wu, Chao

see Ye, Mao, 1021

Wu, Chin H.

see Yao, Aifeng, 541

see Yuan, Hengliang, 479

Wu, David

see Lechman, Jeremy, 490

Wu, Fuqiang

Bivariate Quasi-Steady Model for Prediction of Roof Corner Pressures, 61

Wu, H.

see Xiao, Y., 119

Wu, Hwai-Chung

Durability of FRP Composite Bridge Deck Materials under Freeze-Thaw and Low Temperature Conditions, 147

see Mu, Bin, 196

Wu, Jane-Yii

see Lin, Yun-Huin, 630

Wu, Jin

see Xu, Xingxin, 932

Wu, Jing

Uncertainty Analysis for Coupled Waterhed and Water Quality Modeling Systems, 1838

Wu, Jonathan T. H.

Allowable Bearing Pressures of Bridge Sills on GRS Abutments with Flexible Facing, 855

Wu, Jong-Cheng

Implementation of a Feasible Control Design Process Incorporating Robustness Criteria for Wind-Excited High-Rise Buildings, 1448

Wu, Jun

see Burgueño, Rigoberto, 234

Wu, Ning

see Tian, Zong Z., 1685

Wu, Shin

see Sargand, Shad M., 1746

Wu, Ting Nien

Distribution of Methylmercury in a Mercury-Contaminated Ecosystem, 1961

Wu, Ting-Nien

Detection of Illegal Dump Deposit with GPR: Case Study, 1955

Wu, Weiming

Formulas for Sediment Porosity and Settling Velocity, 1016

Wu, X. J.

see Liu, Rong, 60

Wu, Yeong S.

see Chiang, Chow F., 651

Wu, Y.-F.

Flexural and Shear Strength of Composite Lintels in Glass-Fiber-Reinforced Gypsum Wall Constructions, 1306

New Avenue of Achieving Ductility for Reinforced Concrete Members, 1587

Wu, Yingxiang

see Gao, Fuping, 1727

Wu, Zhimin

see Xu, Shilang, 1357

Wu, Zhishen

see Niu, Hedong, 1345

Wurbs, Ralph A.

Methods for Developing Naturalized Monthly Flows at Gaged and Ungaged Sites, 1076

Xagorarakis, Irene

Inactivation Kinetics of the Cyanobacterial Toxin Microcystin-LR by Free Chlorine, 692

Xhou, Aixi

see Keller, Thomas, 244

Xi, Yunping

Damage Theory Based on Composite Mechanics, 561

Xia, Cenling

Multilayer Averaged and Moment Equations for One-Dimensional Open-Channel Flows, 1013

Xia, Jun

see Jia, Shaofeng, 1819

Xia, Kaiming

New Stabilized Finite Element Method Embedded with a Cap Model for the Analysis of Granular Materials, 460

Xia, Yong

Auto-Parametric Vibration of a Cable-Stayed-Beam Structure under Random Excitation, 463

see Zandaro, Giovanna, 162

Xiang, Y.

see Zhang, L., 514

Xiao, Y.

Experimental Studies on Seismic Behavior of Steel Pile-to-Pile-Cap Connections, 119

Xiao, Yan

see Shan, Bo, 219

Xiao, Zhi-Gang

Measurement of Truck Axle Weights by Instrumenting Longitudinal Ribs of Orthotropic Bridge, 155

Xie, Hao

Developing a Web-Based System for Large-Scale Environmental Hydraulics Problems with Application to Oil Spill Modeling, 264

- Xie, Mowen**
GIS-Based Implementation of Three-Dimensional Limit Equilibrium Approach of Slope Stability, 839
- Xing, Hao-Feng**
Construction of Concrete-Faced Rockfill Dams with Weak Rocks, 849
- Xiong, G. J., *tu.edu.cn***
Effect of Contact Pressure on Bond Strength of Fiber-Reinforced Polymer to Concrete, 215
- Xiong, Yong-Liang**
see Chan, Wai-Shan, 1656
- Xu, B.**
Probabilistic Stability Analyses of Embankments Based on Finite-Element Method, 911
- Xu, Lei**
Seismic Design Optimization of Steel Building Frameworks, 1466
- Xu, P.**
Application of Fen'ton's Reagent to Remediate Diesel Contaminated Soils, 1941
- Xu, Shilang**
Study on the Average Fracture Energy for Crack Propagation in Concrete, 1357
- Xu, Xingxin**
Case Study: Application of GPR to Detection of Hidden Dangers to Underwater Hydraulic Structures, 932
- Xu, Y. L.**
see Guo, W. H., 478
- Xu, You-Lin**
see Chan, Wai-Shan, 1656
- Yahya, I. A.**
see Abdul-Rahman, H., 300
- Yajima, Syuji**
see Sakano, Masahiro, 171
- Yam, Michael C. H.**
see Shen, Li-Yin, 329
- Yamada, Kentaro**
see Xiao, Zhi-Gang, 155
- Yamada, Takemine**
see Suzuki, Kiichi, 57
- Yamaguchi, Kouta**
see Xiao, Zhi-Gang, 155
- Yamaji, Hiroto**
see Sana, Ahmad, 1040
- Yamamoto, Yoichi**
see Takahashi, Naoki, 834
- Yaman, Cevat**
see Korkut, Eyüp Nafiz, 614
- Yamazaki, Fumio**
see Shimizu, Yoshihisa, 801
- Yan, An**
see Mu, Bin, 196
- see* Wu, Hwai-Chung, 147
- Yan, J. M.**
Contaminant Transport Model for Unsaturated Soil using Fuzzy Approach, 752
- Yan, W. M.**
see Wang, Y. H., 864
- Yan, Xi-Luan**
see Zhu, Jian-Hang, 722
- Yan, Xuedong**
Geometric Models to Calculate Left-Turn Sight Distance for Signalized Intersections on Horizontal Curves, 1738
- Yanagisawa, Eiji**
see Suzuki, Kiichi, 47
- Yandamuri, S. R. Murty**
Multiobjective Optimal Waste Load Allocation Models for Rivers using Nondominated Sorting Genetic Algorithm-II, 1814
- Yanful, Ernest K.**
see Mohan, Prasanna K., 613
- Yang, Demao**
Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes, 1492
- Yang, H.**
Behavior of Unsaturated Layered Soil Columns during Infiltration, 1105
- Yang, Henry T. Y. Yang**
see Ma, Tian-Wei, 1549
- Yang, Hezhen**
see Li, Huajun, 533
- Yang, Hong**
see Jia, Shaofeng, 1819
- Yang, J.**
Frequency-Dependent Amplification of Unsaturated Surface Soil Layer, 827
Influence Zone for End Bearing of Piles in Sand, 891
Observed Performance of Long Steel H-Piles Jacked into Sandy Soils, 779
- Yang, Jianqing**
see Bruen, Michael, 1131
- Yang, Ke**
Numerical Solution for Laterally Loaded Piles in a Two-Layer Soil Profile, 910
- Yang, Luo**
see Liang, Robert, 879
- Yang, Michael, ed.**
see Parsons, Robert L., ed., 2067
- Yang, Min-Lung**
Innovative Central Opening Strut System for Foundation Excavation, 293
- Yang, Songtao**
see Ling, Hoe I., 580
- Yang, W. F.**
see Hsieh, C. D., 1954
- Yang, Xiao-MingN**
see Li, Zhong-Xian, 1724

AUTHOR INDEX

Yildirim

Yang, Yaowen

Integrated Optimization of Control System for Smart Cylindrical Shells using Modified GA, 66

Yang, Yong

see Leung, Christopher K. Y., 492

Yang, Zheng-Mao

see Lie, Seng-Tjhen, 1475

see Lie, Seng-Tjhen, 1476

Yang, Zhifu

Water Transport in Concrete Damaged by Tensile Loading and Freeze-Thaw Cycling, 1307

Yankey, Greg

see Deschamps, Rick, 828

Yao, Aifeng

Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents, 541

Yao, Chin-Liang

see Wang, Cheng-Der, 18

Yao, Jun

see Sato, Chikashi, 586

Yao, Rong-Han

see Wang, Dian-Hai, 1774

Yao, Wenjuan

Internal Forces for Statically Indeterminate Structures having Different Moduli in Tension and Compression, 508

Yapa, Poojitha D.

see Xie, Hao, 264

Yaprak, T. T.

see Xiao, Y., 119

Yarrington, Lane

see McKenna, Sean A., 1833

Yasuda, Susumu

see Shimizu, Yoshihisa, 801

Yasuhara, Kazuya

see Hyde, Adrian F. L., 845

Yates, J. K.

Avoiding and Minimizing Construction Delay Claim Disputes in Relational Contracting, 1421

Utilizing Dispute Review Boards in Relational Contracting: A Case Study, 1436

Yatim, B.

see Othman, M. Y., 433

see Othman, M. Y., 434

Yazbek, Waël

Adsorption and Desorption of Volatile Organic Compounds in Fluidized Bed, 648

Yazdani, Nur

Large Wind Missile Impact Capacity of Residential and Light Commercial Buildings, 1990

see Haroon, Saif, 159

see Haroon, Saif Abdullah, 1382

Yazdani, Nur, P.E.

Modeling Compressive Strength Development in Florida Concrete, 1362

see Mazumder, Anisur Rahman, 1352

Ye, Mao

Case Study of an S-Shaped Spillway using Physical and Numerical Models, 1021

Ye, Zhiming

see Yao, Wenjuan, 508

Yee, Chung Yan

Fundamental Analysis of Profitability of Large Engineering and Construction Firms, 1260

Interactions between Business and Financial Strategies of Large Engineering and Construction Firms, 1254

Yeh, Harry

Maximum Fluid Forces in the Tsunami Runup Zone, 1903

Yeh, I-Cheng

Analysis of Strength of Concrete using Design of Experiments and Neural Networks, 1329

Exploring Concrete Slump Model using Artificial Neural Networks, 266

Yeh, S. H.

see Lai, C. H., 1942

Yeh, T. Y.

Field Investigation at a Chlorinated Ethylene Contaminated Site, 1963

Yeh, Tsu-Hung

see Chang, Hsin-Li, 1687

Yeh, William W.-G.

see Loáiciga, Hugo A., 1116

Yepes, Victor

Economic Heuristic Optimization for Heterogeneous Fleet VRPHESTW, 1694

Yetgin, Şükrü

Study of Effects of Natural Pozzolan on Properties of Cement Mortars, 1356

Yeung, Sau Fung

see Cheung, Sai On, 368

Yi, Kyoo-Jin

Scheduling-Based Risk Estimation and Safety Planning for Construction Projects, 351

Yi, Taewoo

Role of Particle Size and Ammonium Oxidation in Removal of 17 α -Ethinyl Estradiol in Bioreactors, 757

Yi, Tianyi

Analyses of a Two-Story Unreinforced Masonry Building, 1505

Lateral Load Tests on a Two-Story Unreinforced Masonry Building, 1504

see Moon, Franklin L., 1506

Yi, Xianjie

Quantifying the Effect of Rock Strength Criteria on Minimum Drilling Mud Weight Prediction using Polyaxial Rock Strength Test Data, 38

Yildirim, Gürol

Hydraulic Analysis and Direct Design of Multiple Outlets Pipelines Laid on Flat and Sloping Lands, 1226

Yildirim, Yetkin, P.E.

Evaluation of Viscosity Values for Mixing and Compaction Temperatures, 1322

Yim, Solomon, P.E.

see Robertson, Ian N., 2009

Yim, Solomon C. S.

Coupled Surge-Heave Motions of a Moored System.

II: Stochastic Analysis and Simulations, 502

see Lin, Huan, 501

Yim, Solomon C. S. Yim

see Chansawat, Kasidit, 106

Yin, Hao

see Zhang, Shu-Juan, 755

Yin, Jian-Hua, ed.

see Han, Jie, P.E., ed., 2045

Yin, Samuel Y. L.

see Pserng, H. Ping, 327

Yin, Y.

see Hu, X. G., 1065

Yin, Yue

see Hou, Chao-Sheng, 555

Yiu, Kenneth T. W.

see Cheung, Sai On, 1411

Yiu, Tak Wing

Logistic Likelihood Analysis of Mediation Outcomes, 389

Yiu, Tak Wing Yiu

see Cheung, Sai On, 368

Yokoyama, Katsuhide

see Umeda, Makoto, 1020

Yonge, David R.

see Alam, Mahbub, 623

Yoo, Chai H.

Mechanics of Web Panel Postbuckling Behavior in Shear, 1595

see Kim, Kyungsik, 1558

see Kim, Kyungsik, 1598

Yoo, Chulsang

see Kim, Tae-Woong, 1084

Yoo, Chungsik

Case History of Geosynthetic Reinforced Segmental Retaining Wall Failure, 921

Yoo, H. Harold

EDTA, NTA, Alkylphenol Ethoxylate and DOC Attenuation during Soil Aquifer Treatment, 674

Yoo, Pyeong Jun

see Elseifi, Mostafa A., 452

Yoon, J.

see Kavvas, M. L., 1099

Yoon, Jaewan, ed.

see Wright, Neal R., ed., 2048

Yoshihara, H.

Failure Behavior of Spruce Wood under Bending-Shear Combined Stress Field, 1271

You, Rey-Jer

Coordinate Transformation between Two Geodetic Datums of Taiwan by Least-Squares Collocation, 1649

Local Geoid Improvement using GPS and Leveling Data: Case Study, 1655

You, Sheng-Jie

see Tsai, Yung-Pin, 602

You, Y. G.

see Zheng, Y. H., 1865

You, Ya-Ge

see Wu, Bi-Jun, 1864

Youd, T. Leslie

see Chu, Daniel B., 922

Young, Ben

see Chen, Ju, 1631

see Nguyen, Ngoc T. B., 1600

see Ren, Wei-Xin, 1633

see Zhou, Feng, 1451

see Zhu, Ji-Hua, 1546

see Zhu, Ji-Hua, 1632

Young, Bradley S.

see Kijewski-Correa, Tracy, 1588

Young, C. Bryan

Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35, 1092

Young, D. L.

see Lo, D. C., 456

see Tsai, C. C., 467

Young, David M.

see Tang, Wenzhe, 310

Young, David T.

see Udoeyo, Felix F., 1330

Young, James C.

see Chiang, Chow F., 651

Young, Michael A.

see Vickery, Peter J., 1931

Young, Thomas M.

see Huang, Xinjiang, 702

Young, Travis S. M.

Anaerobic Biodegradation of RDX and TCE: Single- and Dual-Contaminant Batch Tests, 1949

Young, Yin Lin

see Robertson, Ian N., 2009

Young-Su, Kim

Use of Artificial Neural Networks in the Prediction of Liquefaction Resistance of Sands, 917

Yu, Ann T. W.

Investigation of Critical Success Factors in Construction Project Briefing by Way of Content Analysis, 404

Yu, Cheng

Distortional Buckling Tests on Cold-Formed Steel Beams, 1490

Yu, Daeyoung

Multiple Tandem Jets in Cross-Flow, 1027

Yu, F.

see Yang, J., 779

AUTHOR INDEX

Zengin

- Yu, Guoliang**
Errors in the Bed Shear Stress as Estimated from Vertical Velocity Profile, 1220
Performances of Hydraulics and Bedload Sediment Flushing in Rigid Channel using Surge Flows, 1183
- Yu, Han-Qing**
see Zhang, Shu-Juan, 755
- Yu, Jung-Ho**
Evaluation Model for Information Systems Benefits in Construction Management Processes, 398
- Yu, Qiang**
see Bažant, Zdeněk P., 558
see Bažant, Zdeněk P., 1439
- Yu, Shaw L.**
see Wu, Jing, 1838
- Yu, T.**
Flexural Behavior of Hybrid FRP-Concrete-Steel Double-Skin Tubular Members, 233
- Yu, Xinying**
see Atiquzzaman, Md., 1813
- Yu, Xueyuan**
Factors Influencing Arsenite Removal by Zero-Valent Iron, 749
- Yuan, Bo**
see Garber, Nicholas J., 1665
- Yuan, Ching**
see Weng, Chih-Huang, 1959
- Yuan, Feng**
see Wang, Kun, 1937
- Yuan, Hengliang**
Fully Nonhydrostatic Modeling of Surface Waves, 479
- Yuan, Pao-Chiang**
see Li, Yadong, P.E., 638
- Yue, Wusi**
Large-Eddy Simulation of Turbulent Flow over a Fixed Two-Dimensional Dune, 996
- Yue, Z. Q.**
see Pradhan, B., 36
- Yukselen, Yeliz**
Comparison of Methods for Determining Specific Surface Area of Soils, 865
- Yulismana, Wahyu**
see Moses, Jonathan P., 143
- Yun, Young Mook**
Strength of Two-Dimensional Nodal Zones in Strut-Tie Models, 1613
- Zaghoul, A.**
see Baddour, R. E., 967
- Zagona, Edith**
see Frevert, Donald, 1174
- Zagona, Edith A.**
see Carron, John C., 1176
see Prairie, James R., 1110
- Zain, Mohammed**
see Budek, Andrew, 89
- Zakaria, N. A.**
see Sinnakaudan, S. K., 983
- Zakrajšek, Majda**
see Četina, Matjaž, 943
- Zanardo, Giovanna**
Stiffness Assessment through Modal Analysis of an RC Slab Bridge before and after Strengthening, 162
- Zanuttigh, Barbara**
Experimental Analysis and Numerical Simulations of Waves and Current Flows around Low-Crested Rubble-Mound Structures, 1856
- Zapata, Claudia E., ed.**
see Miller, Gerald A., ed., 2096
- Zaramella, Mattia**
see Marion, Andrea, 1061
- Zaritzky, Noemi**
see Caravelli, Alejandro, 713
- Zarli, Alain**
see Rezgui, Yacine, 364
- Zarrai, A. R.**
Reduction of Local Scour in the Vicinity of Bridge Pier Groups using Collars and Riprap, 947
- Zayed, Tarek**
see Al-Barqawi, Hassan, 1376
see Minchin, R. Edward, Jr., 1258
- Zbib, Hussein**
see Dessouky, Samer, 451
- Zdounba, D.**
see Tastani, S. P., 190
- Zdravkovic, L.**
see Grammatikopoulou, A., 41
- Zech, Y.**
see Proust, S., 1026
- Zedler, Emily A.**
Sediment Transport over Ripples in Oscillatory Flow, 950
- Zee, Chong-Hung**
Earthquake Hydrodynamic Pressure on Dams, 1046
- Zee, Raymond**
see Zee, Chong-Hung, 1046
- Zeier, Benjamin**
see Xagorarakis, Irene, 692
- Zekioglu, Atilla, P.E.**
Braced for the Future, 2040
- Zekkos, Dimitrios**
Unit Weight of Municipal Solid Waste, 893
- Zeng, Hui**
see Zhang, Tian C., 721
- Zeng, Xiangwu**
see Wang, Judith C., 1275
- Zeng, Xiaogang**
see Zhao, Fang, P.E., 251
- Zengin, Gulsum Emel**
see Cokgor, Emine Ubay, 590

Zerihun, D.

see Furman, A., 1230

Zhai, Chao

see Ramamurthy, A. S., 954

Zhan, J. M.

see Li, Y. S., 1876

Zhang, Bao

see Zhu, Jian-Hang, 722

Zhang, Burong

Design and Evaluation of Fiber-Reinforced Polymer Bond-Type Anchorages and Ground Anchors, 29

Zhang, Dongmei, ed.

see Zhu, Hehua, ed., 2095

Zhang, Feng, ed.

see Zhu, Hehua, ed., 2095

Zhang, Hong

Particle Swarm Optimization for Preemptive Scheduling under Break and Resource-Constraints, 314

Particle Swarm Optimization-Supported Simulation for Construction Operations, 413

Permutation-Based Particle Swarm Optimization for Resource-Constrained Project Scheduling, 259

Zhang, J.

Constructability Analysis of the Bridge Superstructure Rotation Construction Method in China, 323

Zhang, Jim X.

see Aggour, M. Sherif, 930

Zhang, Jingyu

see Suarez, Jorge, 1327

Zhang, L.

Bivariate Flood Frequency Analysis Using the Copula Method, 1086

Vibration of Open Cylindrical Shells with Stepped Thickness Variations, 514

Zhang, L. M.

Impact of Routine Quality Assurance on Reliability of Bored Piles, 835

Termination Criteria for Jacked Pile Construction and Load Transfer in Weathered Soils, 854

Zhang, Lei

Determination of Sustainable Yield in Urban Groundwater Systems: Beijing, China, 1072

Zhang, Li

Form-Finding of Nonregular Tensegrity Systems, 1580

Zhang, Limin, ed.

see Parsons, Robert L., ed., 2067

Zhang, M. Z.

see Li, C. S., 1610

Zhang, Q.

see Ghassemi, A., 437

Zhang, R.

see Dawe, J. L., 1511

Zhang, Shifeng

see Jia, Shaofeng, 1819

Zhang, Shu-Juan

Impact of Inherent Factors on the Radiolytic Degradation of Biorefractory Contaminants, 755

Zhang, Tian C.

Development of a Response Surface for Prediction of Nitrate Removal in Sulfur — Limestone Autotrophic Denitrification Fixed-Bed Reactors, 721

Effects of Surface-Bound Fe^{2+} on Nitrate Reduction and Transformation of Iron Oxide(s) in Zero-Valent Iron Systems at Near-Neutral pH, 658

Zhang, Tie

see Liu, Rong, 60

Zhang, Weihua

EDTA-Enhanced Washing for Remediation of Pb- and/or Zn-Contaminated Soils, 730

Zhang, Xiao Ming

see Chen, Su Huan, 520

Zhang, Xiaofeng

Experimental Evaluation of Reduced Beam Section Connections to Deep Columns, 1473

Seismic Behavior of Reduced Beam Section Moment Connections to Deep Columns, 1474

Zhang, Xueqing

Factor Analysis of Public Clients' Best-Value Objectives in Public — Privately Partnered Infrastructure Projects, 383

Markov-Based Optimization Model for Building Facilities Management, 407

Public Clients' Best Value Perspectives of Public Private Partnerships in Infrastructure Development, 298

Zhang, Y. H.

see Cheng, Y. M., 42

Zhang, Y. Y.

Buckling of Multiwalled Carbon Nanotubes using Timoshenko Beam Theory, 534

Zhang, Yihua

see Rakha, Hesham, 1731

Zhang, Yin

Vehicle-Induced Dynamic Performance of FRP versus Concrete Slab Bridge, 144

Zhang, Yiqiang

see Yu, Xueyuan, 749

Zhang, Yue

see Toutanji, Houssam, 1264

Zhang, Yunfeng

Wavelet-Based Vibration Sensor Data Compression Technique for Civil Infrastructure Condition Monitoring, 275

Zhang, Z.

see Gil, A. J., 82

Zhang, Zhanmin

Applying Method of Moments to Model Reliability of Pavements Infrastructure, 1706

see Damjanovic, Ivan, 1671

Zhao, Can-Hua

Experimental Study of Flow in a Vortex Drop Shaft, 937

Experimental Study of Surcharged Flow at Combining Sewer Junctions, 1058

AUTHOR INDEX

Zhu

- Zhao, Dianfeng
New Approach for Seismic Nonlinear Analysis of
Inelastic Framed Structures, 535
- Zhao, Fang
see Li, Min-Tang, 1735
- Zhao, Fang, P.E.
Simulated Annealing - Genetic Algorithm for Transit
Network Optimization, 251
- Zhao, H.
see Forsberg, C. W., 432
- Zhao, J.
see Zhao, X. B., 498
- Zhao, Jian
Comparison of Tests of a Nonlinear Structure using a
Shake Table and the EFT Method, 1584
- Zhao, Liangying
see Toutanji, Houssam, 1264
see Toutanji, Houssam, P.E., 213
- Zhao, Tong
Infrastructure Development and Expansion under
Uncertainty: A Risk-Preference-Based Lattice
Approach, 350
- Zhao, X. B.
Normal Transmission of S-Wave across Parallel Frac-
tures with Coulomb Slip Behavior, 498
- Zhao, Xianda
see Gellner, W. James, II, 773
- Zhao, Yanhua
see Xu, Shilang, 1357
- Zhao, Zhen Yu
see Shen, Li Yin, 384
- Zheng, Jinghui
Case Study: Design and Operation of Sustainable
Urban Infiltration Ponds Treating Storm Runoff,
1775
- Zheng, Weizhong
Short-Term Freeway Traffic Flow Prediction: Baye-
sian Combined Neural Network Approach, 1675
- Zheng, Y. H.
Scattering of Linear Water Waves by a Fixed and
Infinitely Long Rectangular Structure Parallel to a
Vertical Wall in Oblique Seas, 1865
- Zheng, Yong-Hong
see Wu, Bi-Jun, 1864
- Zhong, Hongzhi
Buckling of Simply Supported Rectangular Reissner —
Mindlin Plates Subjected to Linearly Varying In-
Plane Loading, 491
- Zhong, L.
see Thornton, E. C., 769
- Zhou, C. E.
Closed-Form Stiffness Matrix for the Four-Node Quad-
rilateral Element with a Fully Populated Material
Stiffness, 581
- Zhou, Feng
Cold-Formed Stainless Steel Sections Subjected to
Web Crippling, 1451
see Inoue, Kazuo, 1525
- Zhou, G. C.
Cellular Automata Model for Predicting the Failure
Pattern of Laterally Loaded Masonry Wall Panels,
276
- Zhou, Guoqing
Customizing Visualization in Three-Dimensional
Urban GIS via Web-Based Interaction, 1782
- Zhou, Hongde
see Quiñones-Bolaños, Edgar, 714
- Zhou, Li-Hua
see Wang, Kun, 1937
- Zhou, M. C.
see Wong, Tommy S. W., 1088
- Zhou, Ping
Treatment of High-Strength Pharmaceutical Waste-
water and Removal of Antibiotics in Anaerobic and
Aerobic Biological Treatment Processes, 597
- Zhou, Qin
see Ye, Mao, 1021
- Zhou, Xiangming
Upsetting Tests of Fresh Cementitious Composites for
Extrusion, 450
- Zhou, Xiao-Guang
see Xing, Hao-Feng, 849
- Zhou, Y. Edward
Assessment of Bridge Remaining Fatigue Life through
Field Strain Measurement, 177
- Zhu, David Z.
see Zhao, Can-Hua, 937
see Zhao, Can-Hua, 1058
- Zhu, Hehua, ed.
Underground Construction and Ground Movement,
2095
- Zhu, Jian-Hang
Simultaneous Removal of Phenol and Nitrate in an
Anaerobic Bioreactor, 722
- Zhu, Ji-Hua
Experimental Investigation of Aluminum Alloy Thin-
Walled Tubular Members in Combined Compression
and Bending, 1632
Tests and Design of Aluminum Alloy Compression
Members, 1546
- Zhu, Pingsheng
see Huo, X. Sharon, 1992
- Zhu, Wei
Temporal Variation in Consumer Spatial Behavior in
Shopping Streets, 1792
- Zhu, X. Q.
see Bu, J. Q., 579
see Law, S. S., 442
- Zhu, Xueye
see Pekau, O. A., 537
- Zhu, Yimin
Framework to Support the Representations of Semantic
Mappings for a Hybrid Integration Strategy, 268

Zhu, Zhenyu

- Seismic Performance of Concrete-Filled FRP Tube
Columns for Bridge Substructure, 139
Splicing of Precast Concrete-Filled FRP Tubes, 224

Zhuge, Yan

- see Pham, Maria M., 1502

Ziehl, Paul H., P.E.

- see Cole, Thomas A., 145

Zils, John, P.E.

- see Iyengar, Hal, P.E., 2000

Zimbelman, Darell, P.E., ed.

- Operating Reservoirs in Changing Conditions, 2078

Zimmer, Alec S., P.E.

- An Avoidable Tragedy, 2039

Zimmermann, Claus

- see Stoschek, Oliver, 1893

Zipper, Carl E.

- see Dougherty, Mark, 643

Žnidarič, Aleš

- see Brady, Sean P., 128

Zoghbi, Manoochehr

- Performance Assessment of a Precast-Concrete, Buried, Small Arch Bridge, 1390

Zoh, Kyung-Duk

- see Kim, Lee-Hyung, 711

Zoller, U.

- Water Reuse/Recycling and Reclamation in Semiarid
Zones: The Israeli Case of Salination and "Hard"
Surfactants Pollution of Aquifers¹, 675

Zollinger, Dan G., P.E.

- see Jeong, Jin-Hoon, 1295

Zou, Rui

- Integrated Hydrodynamic and Water Quality Modeling
System to Support Nutrient Total Maximum Daily
Load Development for Wissahickon Creek, Pennsylvania, 644

- see Wu, Jing, 1838

Zufelt, Jon E., P.E., ed.

- see Davis, Michael, P.E., ed., 2056

Zulliger, Kimberly

- see Xagorarakis, Irene, 692

Zundel, Alan

- see Hereth, William R., 258

Zureick, Abdul-Hamid

- Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design, 1569

Zweifel, Andreas

- Plane Impulse Waves in Reservoirs, 1888

Zwicky, Daia

- Critical Inclination of Compression Struts in Concrete Beams, 1508

